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*Academia regis Scientiarum
Monacensi*

Auctor

THE
GENERA AND SPECIES
OF
ORCHIDEOUS PLANTS.

Part I. MALAXIDEÆ.

Price 7s.

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THE
GENERA AND SPECIES
OF
ORCHIDEOUS PLANTS.

BY JOHN LINDLEY, F. R. S. L. S. G. S.

Member of the Imperial Academy Naturæ Curiosorum, of the Botanical Society of
Ratisbon, of the Physiographical Society of Lund, of the Horticultural Society of
Berlin, Honorary Member of the Lyceum of Natural History of New York, &c. &c.
and Professor of Botany in the University of London.

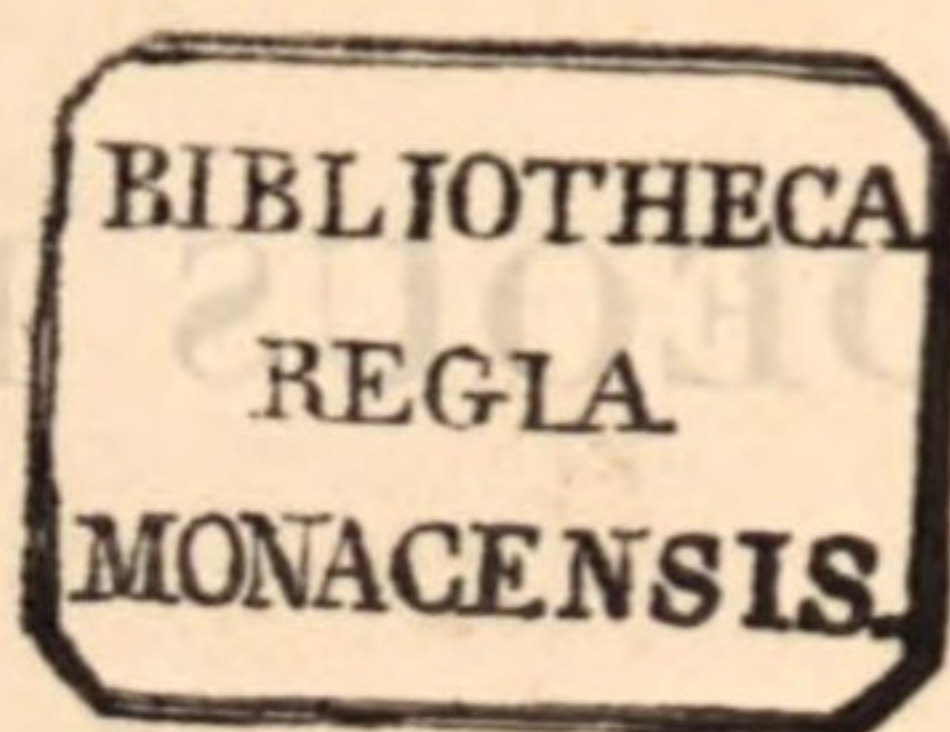
Part I. MALAXIDEÆ.

LONDON:
TREUTTEL AND CO. SOHO SQUARE, AND
RIDGWAYS, PICCADILLY.
M.DCCC.XXX.

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London, of the Physiological Society of London, of the Horticultural Society of
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Part I. MALAXIDACEAE

LONDON:

PRINTED AND CO. SOHO SQUARE, AND
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M.DCCCXX.

TO
NATHANIEL WALLICH, M. D. F. R. S.

&c. &c. &c.

THIS WORK

IS GRATEFULLY INSCRIBED

IN TESTIMONY OF THE HIGH RESPECT

AND

VERY SINCERE ESTEEM

OF

THE AUTHOR.

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MEMORANDUM. The Preface and Introduction to this Work will be printed with the last part. In the mean while the Author begs to express his deep obligation to his scientific Friends in general, for the aid they have afforded him in his undertaking, and most especially to Dr. Wallich, Mr. Lambert, and Mr. M^cRae; to the first of whom he is indebted for an invaluable series of Indian Orchideæ; to the second, for the unrestricted use of that part of Ruiz and Pavon's Herbarium which belongs to this subject; and to the last, for a very rich collection from Ceylon.

Mr. Bauer having most liberally granted the Author the use of his unrivalled Sketches, a series of **ILLUSTRATIONS** is in preparation, of which the first part will soon appear.

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ORCHIDEÆ.

April, 1830.

B

ORCHIDEÆ.

ORCHIDEÆ.

Tribe I. MALAXIDEÆ.

ORCHIDEÆ, Tribus MALAXIDEÆ. *Lindl. Coll. Bot. Orch. Scel.*

Pollen in massis cereaceis (polliniis) definitis cohærens, telâ omni cellulosa superfluâ ademptâ. Anthera terminalis, opercularis. Herbæ epiphytæ v. terrestres, foliorum basibus v. caulibus sæpiùs incrassatis.

I comprehend in this Tribe all the genera that have their pollen cohering in masses of a firm waxy texture, without any of the cellular substance, by which the grains are connected, remaining under the form of a distinct gland lying upon the stigma, or of an elastic transparent communication (caudicula) between the pollen masses and the gland. Malaxideæ may, in other words, be considered as Orchideous plants, the pollen of which communicates directly with the stigma, without the intervention of any intermediate apparatus.

Section I. PLEUROTHALLEÆ.

ORCHIDEÆ; Tribus Malaxideæ,* Pleurothalleæ. *Lindley in Bot. Reg. fol.*

Columna erecta, ad basin parum producta.

ARTIFICIAL ANALYSIS OF THE GENERA.

Pollinia 2.

Labellum cum columna connatum, bilobum	-	-	4. LEPANTHES.
Labellum liberum			
Sepala lateralìa connata			
Columna aptera. Anthera apice membranacea	-		1. PLEUROTHALLIS.
Columna alata. Anthera apice dilatata carnosa			6. OSYRICERA.
Sepala lateralìa libera			
Columna elongata			
Labellum trilobum. Pollinia dimidiata. Columna	}		7. CHRYSOGLOSSUM.
basi alata			
Labellum integerrimum. Pollinia arcuata. Co-	}		18. CYRTOSIA.
lumna basi aptera			
Columna nana			
Labellum petalis conforme			
Sepala lateralìa basi saccata	-	-	2. SPECKLINIA.
Sepala lateralìa basi plana	-	-	5. STELIS.

Labellum petalis difforme

- | | | | | |
|--|---|---|---|------------------|
| Sepala et petala conformia. Labellum planum sæpius truncatum | - | - | - | 10. OBERONIA. |
| Sepala et petala conformia. Labellum medio constrictum basi concavum | - | - | - | 27. MESOCLASTES. |

Pollinia 4.

Sepala lateralalia connata.

- | | | | | |
|---------------------------------------|---|---|---|-------------------|
| Sepalum supremum acuminatissimum | - | - | - | 9. RESTREPIA. |
| Sepalum supremum lateralibus conforme | - | - | - | 8. GASTROGLOTTIS. |

Sepala lateralalia libera.

Sepala et petala subæqualia erecta.

- | | | | | |
|----------------|---|---|---|------------|
| Anthera biloba | - | - | - | 22. CÆLIA. |
|----------------|---|---|---|------------|

Anthera integra

Anthera longitudin. dehiscens

- | | |
|---|-------------------|
| Labellum integerrimum. Columna bicornis | 20. DENDROCHILUM. |
|---|-------------------|

Labellum trilobum. Columna mutica

- | | |
|-------------------------------|---------------|
| Pollinia collateralia (oo oo) | 25. CÆLOGYNE. |
|-------------------------------|---------------|

- | | |
|----------------------------|---------------|
| Pollinia incumbentia (♂ ♂) | 26. DICRYPTA. |
|----------------------------|---------------|

Anthera transversè dehiscens

- | | | | | |
|----------------------|---|---|---|----------------|
| Labellum ventricosum | - | - | - | 23. PHOLIDOTA. |
|----------------------|---|---|---|----------------|

- | | | | | |
|-----------------------------------|---|---|---|----------------|
| Labellum lineare basi auriculatum | - | - | - | 21. OTOCHILUS. |
|-----------------------------------|---|---|---|----------------|

Sepala et petala patentissima valdè inæqualia.

- | | | | | |
|--|---|---|---|------------------|
| Labellum cum columna angulum rectum efformans, basi sagittatum v. cordatum | - | - | - | 13. MICROSTYLIS. |
|--|---|---|---|------------------|

Labellum cum columna subparallelum

- | | | | | |
|---|---|---|---|--------------|
| Labellum (nanum) petalis conforme. Pollinia incumbentia (♂ ♂) | - | - | - | 15. MALAXIS. |
|---|---|---|---|--------------|

Labellum petalis majus et difforme. Pollinia collateralia (oo oo)

Labellum integrum. Columna elongata.

- | | | | | |
|--|---|---|---|-------------|
| Labellum basi cucullatum cum facie columnæ altè accretum, sepalis lateralibus obliquè connatum | - | - | - | 11. EMPUSA. |
|--|---|---|---|-------------|

Labellum basi planum

- | | | | | |
|-------------------|---|---|---|--------------|
| Columna semiteres | - | - | - | 19. LIPARIS. |
|-------------------|---|---|---|--------------|

- | | |
|-------------------------------|------------------|
| Columna disciformis compressa | 12. PLATYSTYLIS. |
|-------------------------------|------------------|

- | | | | | |
|--|---|---|---|-------------|
| Labellum tridentatum, nunc excavatum. Columna nana | - | - | - | 14. DIENIA. |
|--|---|---|---|-------------|

Pollinia 8.

- | | | | | |
|---------------------|---|---|---|---------------------|
| Labellum calcaratum | - | - | - | 16. NEPHELAPHYLLUM. |
|---------------------|---|---|---|---------------------|

Labellum ecalcaratum

- | | | | | |
|-----------------|---|---|---|----------------|
| Petala aristata | - | - | - | 17. ACIANTHUS. |
|-----------------|---|---|---|----------------|

Petala mutica

- | | | | | |
|-------------------|---|---|---|---------------|
| Columna semiteres | - | - | - | 3. OCTOMERIA. |
|-------------------|---|---|---|---------------|

- | | |
|---|---------------|
| Columna alata, apice cucullata. Labellum lamellatum | 24. DILOCHIA. |
|---|---------------|

I. PLEUROTHALLIS.

Pleurothallis, *R. Brown, in Hort. Kew.* 5. 211.

Sepala conniventia, subæqualia : lateralibus v. omnibus connatis. Petala minora. Labellum liberum, cum columna subparallelum, integerrimum, petalis difforme. Columna elongata, aptera, libera, cum ovario continua. Anthera apice membranacea. Pollinia 2, nunc materie pulvereâ ad apicem cohærentia. —Herbæ epiphytæ, rhizomate repente filiformi. Caules filiformes, monophylli, sæpius vaginati. Flores axillares, solitarii, v. fasciculati, v. racemosi, herbacei v. fusi.

The species of this genus are in great want of careful examination by some West Indian Botanist who has opportunities of seeing them alive. In Herbaria the specimens are almost always bad, and the parts are besides difficult to make out, on account of their minuteness. I am in possession

of a species from Mexico, and of another from Rio, both of which are no doubt undescribed, but I am unwilling to publish them without better materials.

1. *PLEUROTHALLIS ruscifolia*. *R. Br.*

P. folio ovali-lanceolato caulis longitudine, floribus fasciculatis, spathâ bivalvi, pedicellis 2-3-bracteatis filiformibus floribus longioribus, sepalis ovato-lanceolatis: lateralibus connatis, petalis lineari-lanceolatis minoribus, labello oblongo undulato obtuso.

Epidendrum ruscifolium. *Linn. sp. pl.* 1353. *Jacq. Amer.* 226. t. 133. f. 3.

Dendrobium ruscifolium. *Swartz ! n. act. Ups.* 6. p. 84. *Willd. n.* 16.

Pleurothallis ruscifolia. *R. Br. in Hort. Kew.* 5. 211. *Hooker Ex. Fl.* 197.

Hab. in *Jamaica* super arbores, *Swartz*; in insulis *Caribæis*, *De Ponthieu*, (*v. s. sp. in Herb. Banks. et v. cult.*)

Dr. Hooker's figure is authority for this species, and it is from it that I have framed my specific character. It is extremely probable that more species than one are confounded under the same name. I have specimens from Rio of what is no doubt nearly allied to this, but which differs in the form of the leaf, and in having a ciliated *Labellum*; my specimens are not good enough to describe.

2. *PLEUROTHALLIS laurifolia*. *Kunth.*

P. "caule monophyllo, folio oblongo acuminato basi angustato, floribus fasciculato-congestis, foliolis calycinis exterioribus lateralibus apice liberis." *Kunth. in Humb. et Bonpl. n. g. et sp.* 1. 364. *synops.* 1. 346.

Hab. in devexis Andium *Popayanensium* alt. 1200 hex. florens Novembre; *Humboldt et Bonpland.*

Related to *P. ruscifolia*, according to *Kunth.*

3. *PLEUROTHALLIS succosa*.

P. caule tereti folio ovato-lanceolato succoso triplò longiore, floribus fasciculatis subsessilibus, sepalis lanceolatis: lateralibus omninò connatis, petalis linearibus subulatis, labello minimo ovato carnosio recurvo columnæ longitudine.

Humboldtia succosa. *Pavon. in Herb. Lamb.*

Hab. in *Peruvia*, *Pavon. (exam. s. sp. in Herb. Lambert.)*

Caulis semipedalis. Folium 2 uncias longum. Pétala integra, sepalis paulò breviora. Columna nana, anthera horizontali subglobosa.

4. *PLEUROTHALLIS cordata*.

P. caule tereti sulcato folio subrotundo horizontali altè cordato acuminato multo longiore, floribus fasciculatis e spatha brevi coriacea subexsertis.

Humboldtia cordata. *Fl. Peruv ! syst. p.* 234.

Stelis cordata. *Pers. syn. no.* 3.

Hab. in *Peruvia*; *Pavon. (v. s. defl. in Herb. Lambert.)*

Gigantea. Caules validi, erecti, esquamati, ferè pedales. Folia horizontalia, $3\frac{1}{2}$ uncias longa, sinubus baseos cordatæ imbricantibus. Alabastrum unicum vidi valdè juvene subglobosum, undè sepala rotundata conjicio.

? 5. *PLEUROTHALLIS lanceolata*.

P. caule ascendente tereti folio ovato lanceolato erecto ferè triplo longiore,

racemo solitario folio longiore apice nutante e spathâ maximâ coriaceâ dimidiam folii ferè æquante.

Humboldtia lanceolata. *Fl. Peruv! syst.* 237.

Stelis lanceolata. *Pers. syn. no.* 12.

Hab. in *Peruvia*; *Pavon.* (v. s. sp. defl. in *Herb. Lamb.*)

Caulis robustus 10 uncias, folium in basi attenuatum 7, spatha 3, racemus 8 longi.

6. PLEUROTHALLIS tribuloides.

P. "caule brevissimo monophyllo, folio lanceolato obtuso emarginatove, pedunculo brevissimo unifloro, capsula globosa echinata." *Swartz sub Dendrobio.*

Epidendrum tribuloides, *Swartz Prodr.* 123.

Dendrobium tribuloides, *Swartz Fl. Ind. Occ.* 1525. *Willd. n.* 8.

Hab. in sylvis interioribus *Jamaicæ*, parasitica arborum *Crescentiæ*; *Swartz.*

Flores minuti rubri, bracteis geminis ovatis parvis sub germine. Sepala ovata: lateralibus semiconnatis intus punctatis. Petala colore saturatiore. Labellum oblongum, obtusum, concavum, recurvatum, striatum, margine ciliato; ex *Swartz.*

7. PLEUROTHALLIS prolifera. *Herbert.*

P. caulibus ancipitibus, folio oblongo cochleato carnosoproliifero racemo duplo longiore, bracteis cuneatis cuspidatis cucullatis pedicello brevioribus, sepalis conniventibus: lateralibus semiconnatis, petalis labelloque conformibus duplo longioribus, clinandrio dentato.

Pl. prolifera, *Herbert in litt.* *Lindl. in Bot. Reg. t.* 1298.

Hab. in *Brazilia* (v. v. cult.)

8. PLEUROTHALLIS racemiflora. *Lindley.*

P. folio oblongo emarginato racemo secundo multifloro duplo brevior, bracteis vaginatis appressis, sepalis ovato-lanceolatis: lateralibus connatis petalis ovatis subæqualibus, labello subunguiculato linguæformi obtuso plano, clinandrio dentato.

Epidendrum racemiflorum. *Swartz Prodr.* 125.

Dendrobium racemiflorum. *Swartz! Fl. Ind. Occ.* 1543. *Willd. n.* 12.

Pleurothallis racemiflora. *Lindl. in Hooker. Exot. Florâ, t.* 123.

Hab. super arbores in summis montibus *Jamaicæ australis*; *Swartz.* (v. s. sp. in *Herb. Banks. et v. cult.*)

9. PLEUROTHALLIS emarginata.

P. acaulis, foliis solitariis lineari-loratis emarginatis, racemis capillaribus foliis triplo longioribus, sepalis ovato-lanceolatis altè connatis: apicibus liberis carnosis, petalis cuneatis columna brevioribus labelloque trilobonanis.

Humboldtia emarginata. *Pavon. in Herb. Lambert.*

Hab. in *Peruvia*; *Pavon.* (exam. s. sp. in *Herb. Lamb.*)

Cæspitosa, verosimiliter epiphyta. Folia cum basi petioliformi $4\frac{1}{2}$ uncias longa. Racemi cernui (an penduli?) 9 uncias longi. Bracteæ lineares, cucullatæ. Sepala omnia ultra dimidiam connata. Columna triplo sepalis brevior, petalis tamen longior. Labellum cum columna parallelum, ejusdem longitudine, trilobum, lobis rotundatis.

10. *PLEUROTHALLIS spiralis*.

P. caule tereti squamoso folio oblongo æquali, racemo erecto spirali folio longiore, bracteis acuminatis, sepalis ovatis obtusiusculis : lateralibus in unum cymbiforme connatis, petalis columna labelloque truncatis nanis.

Humboldtia spiralis. *Fl. Peruv! syst.* 237.

Stelis spiralis. *Pers. syn. no.* 13.

Hab. in *Peruvia*, *Pavon.* (*exam. s. sp. in Herb. Lambert.*)

Flores maximi in genere, verosimiliter purpurei. Bracteæ latæ, membranaceæ, cucullatæ, apice acuminatissimæ. Sepala septemvenia, latè ovata. Petala minima cuneata, quasi truncata, margine superiore crasso plano, trivenia. Labellum triquetrum. Columna triquetra. Anthera membranacea unilocularis.

This very curious species has the habit and petals of *Stelis*, but its connate lower sepals fix it in *Pleurothallis*; it connects the two genera.

11. *PLEUROTHALLIS macrophylla.* *Kunth.*

P. "caule monophyllo, folio oblongo acuto, spicis compluribus aggregatis, foliolis calycinis exterioribus lateralibus omnino connatis." *Kunth. in Humb. et Bonpl. n. g. et sp.* 1. 365. *Synops.* 1. 346.

Hab. super arbores in Provincia *Popayanensi*, florens Novembre; *Humboldt et Bonpland.*

12. *PLEUROTHALLIS pulchella.* *Lindley.*

P. spicis geminis folio oblongo-lanceolato obtuso coriaceo duplo longioribus, floribus nutantibus, sepalis oblongis apice angustatis triveniis : superiore duplo latiore.

Stelis pulchella. *Kunth. in Humb. et Bonpl. n. g. et sp. pl.* 1. 364. t. 90. *Synops.* 1. 346.

Pleurothallis pulchella. *Lindley in Hooker. Exot. Fl.* 123. *in notis.*

Hab. sub cœlo temperato *Regni Quitensis*, alt. 1370 hex. florens Februario; *Humboldt et Bonp.*

13. *PLEUROTHALLIS laxa.*

P. "caule monophyllo, folio oblongo acuminato, racemis laxis; capsulis nudis." *Swartz sub Dendrobio.*

Epidendrum laxum. *Swartz Prodr.* p. 125.

Dendrobium laxum. *Swartz! Fl. Ind. Occ.* 1547. *Willd. n.* 14.

Hab. in altissimis montibus *Jamaicæ australis*, super ramos arborum; *Swartz. (v. s. sp. in Herb. Banks. sine analysi.)*

P. alpestri valdè affinis; utraque bracteis cucullatis distincta. Racemi foliis subæquales. Flores secundi, atropurpurei, lineati. Bracteæ cucullatæ. Sepala lateralia semiconnata. Labellum ovatum, canaliculatum, apice reflexum, cœrulescens; ex *Swartz.*

14. *PLEUROTHALLIS alpestris.*

P. "caule monophyllo, folio ovato-lanceolato, racemis laxis, carinis capsularum muricatis." *Swartz sub Dendrobio.*

Epidendrum alpestre. *Swartz Prodr.* 125.

Dendrobium alpestre. *Swartz Fl. Ind. Occ.* 1545. *Willd. n.* 13.

Hab. in altissimis montibus *Jamaicæ australis*, super ramos arborum; *Swartz. (v. s. sp. in Herb. Banks. sine analysi.)*

Racemi folio sæpè longiores. Flores parvi, secundi, luteo-virides. Sepala lateralialia semiconnata. Labellum ovatum, obtusum, concavum, minutum, atropurpureum; ex Swartz.

II. SPECKLINIA.

Sepala conniventia, æqualia, distincta: lateralibus basi saccatis extus gibbosis. Petala sepalis conformia triplo minora (nana). Labellum liberum petalis conforme basi saccatum. Columna nana, libera, membranaceo-alata. Anthera unilocularis (bilocularis *Hooker*), infrapicilaris. Pollinia 2, plano-convexa (4, *Hooker*).—Herbæ pusillæ, caulibus filiformibus monophyllis. Folia coriacea. Pedunculi axillares, capillares, pauciflori.

Obs. numerus Polliniorum fortè dubius; in *S. floribunda* certissimè 2 plano convexa in anthera uniloculari; in *S. emarginata* 4, per paria coherentia secundum *Hooker*. Genus *Pleurothalli* proximum, numero polliniorum incerto, sepalis liberis basi saccatis præcipuè diversum.

Nomen in honorem Rodolphi Specklin sculptoris in ligno eximii, cujus icones plantarum pro ævo suo præstantissimæ in Fuchsii Historia stirpium, de Botanica optimè meruerunt.

1. SPECKLINIA sertularioides.

S. caulibus brevissimis, folio lanceolato subpetiolato, sepalis lanceolatis subpatentibus, pedunculis unifloris, rhizomate articulado.

Epidendrum sertularioides. Swartz *Prodr.* 123.

Dendrobium sertularioides. Swartz! *Fl. Ind. Occ.* 1541. Willd. *n.* 11.

Pleurothallis sertularioides. Spreng. *syst.* 3. 731.

Hab. in arboribus densis antiquis montium *Jamaicæ*; Swartz. (*v. s. sp. in Herb. Banks.*)

Rhizoma *Sertulariæ* modo, articulatum, unde nomen. Pedunculi solitarii, capillares, longitudine ferè foliorum squamis spathaceis duabus in medio. Flores albidii, apicibus flavis. Labellum lanceolatum recurvum, basi concavum; ex Swartz.

2. SPECKLINIA Lanceola.

S. caulibus brevissimis, folio lanceolato subpetiolato, sepalis obtusis patentibus, petalis apice subciliatis, pedunculis bifloris.

Epidendrum lanceola. Swartz *Prodr.* 123.

Dendrobium lanceola. Swartz! *Fl. Ind. Occ.* 1539. Willd. *n.* 10.

Pleurothallis lanceola. Spreng. *syst.* 3. 731.

Hab. super arbores in altissimis montibus *Jamaicæ* australis; Swartz. (*v. s. sp. in Herb. Banks.*)

Pedunculus capillaris, longitudine folii, squamis aliquot munitus. Flores fulvi v. aurantii, minuti. Labellum oblongum, obtusum, concavum, recurvum, purpureum, margine luteum; ex Swartz.

Obs. Rhizoma repens in exemplare Swartziano nullum.

3. SPECKLINIA emarginata.

S. caulibus folio oblongo emarginato subæqualibus, sepalis lanceolatis, pedunculis bifloris.

Epidendrum corniculatum. Swartz *Prodr.* 123.

Dendrobium corniculatum. Swartz! *Fl. Ind. Occ.* 1537. Willd. n. 9.

Epidendrum? *monophyllum.* Hooker. *Exot. Fl.* t. 109.

Cymbidium corniculatum. Spreng. *syst.* 3. 722.

Hab. in *Jamaica*; Swartz, Hooker. (v. s. sp. in *Herb. Banks.*)

Pedicelli basi bracteâ cucullatâ suffulti. Sepala viridia. Petala duplò breviora mediò purpurea. Labellum purpureum, lineari-lanceolatum, basi gibbosum. Columna apice dentata. Ovarium purpureum, verrucosum, teste Hooker. Folia ovalia marginata, apice bifida. Scapus capillaris, uniflorus, foliis duplò longior; ex exempl. Swartziano.

4. *SPECKLINIA floribunda.*

S. caule ancipiti folio oblongo-lanceolato duplò longiore, spicâ flexuosâ multiflorâ folio æquali, labello trilobo 2-cristato.

Dendrobium ophioglossoides. Sieber. *Fl. Martin. exsicc.* n. 206.

Hab. in *Martinica*; Sieber. (*habeo s. sp. communic. amiciss. Prescott.*)

Caules numerosi, erecti, cæspitosi. Folium apice integrum mucronulatum. Alabastra ovata. Sepala lanceolata: lateralibus basi saccatis carinatis. Petala spatulata, minora, denticulata. Labellum petalis æquale, trilobum, cristâ duplici membranaceâ longitudinali. Columna semiteres, clinandrio cucullato, membranaceo, anticè dentato. Anthera certo certius unilocularis, polliniis 2, plano-convexis, apice materie viscidâ cohærentibus.

? 5. *SPECKLINIA linearis.*

S. caule ancipiti folio lineari-oblongo subtriplò longiore, spicis capillaribus bifloris: altero folio subæquali, altero duplò brevior.

Humboldtia purpurea. *Flora Peruv. syst!* p. 233.

Stelis purpurea. Pers. *syn.* 2. 524.

Hab. in *Mexico et Peruvia*; Pavon. (v. s. sp. *defloratum* in *Herb. Lambert.*)

Caules cæpitosi, 2-3-unciales. Folia uncialia, apice æqualia, obtusa.

III. OCTOMERIA.

Octomeria, R. Br. in *H. Kew. ed. 2. v. 5. p. 211.*

Sepala patentia, æqualia, basibus paulò connata, lateralibus cum basi leviter productâ columnæ connatis sed nullo modo obliquis. Petala sepalis æqualia et conformia. Labellum basi saccatum, leviter trilobum, cum pede columnæ articulatum, patens. Columna semiteres, elongata, basi leviter et abruptè productâ, cum ovario continua, nec incumbens. Anthera terminalis, 4-locularis, cristâ callosâ. Pollinia 8, quaternatim cohærentia, collateralia (0000 0000).—Herbæ caulescentes, caulibus teretibus articulatis, vaginis fibrosis vestitis, monophyllis, (rarò foliosis). Folia coriacea. Flores axillares, fasciculati aut solitarii, (rarò terminales racemosi). Pedicelli bracteis imbricati.

This genus forms a transition from *Pleurothallæ* to *Dendrobieæ*. The differences between it and *Eria* will be noticed in speaking of the latter genus, to which I have to add the remarkable circumstance of all the pollen masses being collateral and not lying in pairs upon each other, a fact which I have learned from Mr. Bauer's elaborate drawings. Dr. Hooker's figure in the *Botanical Magazine*, t. 2764, is at variance with this statement;—but I presume that excellent Botanist's specimens were in a very imperfect state, as I find in the same plate the anther, which in

the species represented by Dr. Hooker is unquestionably 4 celled with a fleshy crest, figured as absolutely bilocular without any crest.

1. *OCTOMERIA graminifolia*. *R. Br.*

O. foliis solitariis lanceolatis, floribus axillaribus fasciculatis, labello ovato: lobis lateralibus abbreviatis intermedio bicostato tridentato, sepalis petalisque ovatis.

Helleborine graminea repens biflora. *Plum. sp. 9. ic. 176. f. 1.*

Epidendrum graminifolium. *Linn. sp. pl. 1353.*

Dendrobium graminifolium. *Willd. n. 15.*

Octomeria graminifolia. *R. Br. l. c. Hooker, Bot. Mag. 2764.*

Hab. in insulis Caribæis. (v. v. cult.)

Flores flavi, duabus maculis sanguineis, numero incerti, nunc solitarii, nunc binati ternative. Caules majores et crassiores quam in *O. Baueri*.

2. *OCTOMERIA Baueri*.

O. foliis solitariis lanceolatis, floribus axillaribus fasciculatis, labello oblongo: lobis lateralibus sinuosis intermedio elongato apice flexuoso dilatato apiculato, sepalis petalisque ovatis.

Hab. in India Occidentali. Floruit in Horto regio Kewensi Martio 1817. (*V. ic. pict. cel. Baueri.*)

Flores albi apice flavi. Labellum maculis nullis.

This species and the foregoing so entirely resemble each other in habit, foliage and inflorescence, that it is in vain to seek to which of them the specific name *graminifolia* may with the greatest justice be applied. Mr. Brown's specific character is equally applicable to both, and any Botanist might be liable to confound them when dried. I have therefore retained the name for the species figured by Dr. Hooker, who may be considered as the first who really established the species with precision.

3. *OCTOMERIA serratifolia.* *Hooker.*

O. foliis distichis apice serrulatis lineari-lanceolatis basi vaginantibus, racemo terminali paucifloro, labello oblongo-lineari crenulato: lobo intermedio abbreviato obtuso, sepalis petalisque lanceolatis.

Octomeria serratifolia. *Hooker. Bot. Mag. 2823.*

Hab. in montibus Brazilæ. *Hooker.*

Flores albi fulvo suffusi. Anthera secundum cl. Hooker 2-locularis, loculis transversim septulo divisis; (character insolitus!) An pollinia rectè visa? —ex habitu valdè suspicor generis esse diversi.

IV. LEPANTHES.

Lepanthes. *Swartz in act. Scient. Soc. Ups. vi. p. 85; Flora Ind. Occ. p. 1555.*

Sepala patula, basi, præsertim lateralia, connata. Petala duo, libera, nana. Labellum (secundum *Swartzium* nullum sed verosimiliter) apice bilobum cum columna connatum. Columna elongata, teres (secundum *Swartz.* bialata, sed alæ verosimiliter lobi labelli connati, cum auctor ille alas *L. cochlearifoliæ* et *tridentatæ* ad latera baseos columnæ describat). Pollinia 2. —Herbæ epiphytæ, caulibus filiformibus monophyllis vaginatis, spicis axillaribus, *Pleurothallis* omnino habitu. Flores lutei, v. sanguinei, minutissimi, columnâ semper sanguineâ.

Obs. Genus recognoscendum, Swartzio solo visum. Exemplaria omnium specierum extant in Herb. Banksiano sed deflorata. Pleurothalli valdè affine.

1. *LEPANTHES tridentata.* Swartz.

L. "folio ovato acuto marginato apice tridentato; floribus basi triquetris, petalis (sepalis) acuminatis, alis columnæ erecto-incurvis." Swartz. *Fl. Ind. Occ.* p. 1561.

Epidendrum tridentatum. Swartz *Prodr.* p. 125.

Hab. cum *L. pulchellâ*; Swartz. (*v. s. sp. in Herb. Banks. sine floribus.*)

Flores purpureo-lutei.

2. *Lepanthes pulchella.* Swartz.

L. "folio subrotundo acuto; petalis (sepalis) acuminatis ciliatis: interioribus (petalis) utrinque acutis posticè cruciantibus." Swartz *Fl. Ind. Occ.* p. 1559.

Epidendrum pulchellum. Swartz *Prodr.* p. 125.

Hab. supra arbores inter muscos in altissimis montibus *Jamaicæ*, florens Julio et Augusto; Swartz. (*v. s. sp. in Herb. Banks. sine floribus.*)

Flores majores quam *L. concinnæ*, lutei, Swartz. Folium ex exemplare in Herb. Banksiano ovatum, acutum, potius quam subrotundum.

3. *LEPANTHES concinna.* Swartz.

L. "folio ovato-acuminato; petalis (sepalis) subrotundis acutis; interioribus (petalis) posticè obtusis." Swartz *Fl. Ind. Occ.* p. 1557.

Epidendrum ovale. Swartz *Prodr.* p. 125.

Hab. in montibus altis cæruleis *Jamaicæ*, epiphyta florens vere; Swartz. (*v. s. sp. in Herb. Banks. sine floribus.*)

Flores flavi. Folia tricostata.

4. *LEPANTHES cochlearifolia.* Swartz.

L. "folio orbiculato, convexo concavo." Swartz *Fl. Ind. Occ.* p. 1563.

Epidendrum cochlearifolium. Swartz *Prodr.* p. 126.

Hab. in truncis arborum nec non rupibus muscis vestitis in summis montibus *Jamaicæ* australis, florens ultimis mensibus anni; Swartz. (*v. s. sp. in Herb. Banks. sine floribus.*)

Flores sanguinei. Pollinium unicum! Swartz. Caulis squamis ovatis ciliatis plurimis vestitus.

V. STELIS.

Stelis. Swartz in Schrad. *Diar. Botan.* 1799. p. 239. t. 2. f. 3.

Sepala globoso-conniventia, æqualia, valvata, basibus subconnata. Petala nana. Labellum nanum petalis conforme. Columna nana, mutica, cum ovario continua. Anthera 1-locularis. Pollinia 2, ovata, cereacea, distincta, nunc ad apicem materie viscidâ cohærentia.——Herbæ epiphytæ habitu Pleurothallis.

1. *STELIS ophioglossoides*. Swartz.

S. folio tenui lanceolato apice sæpius recurvo, spicâ laxâ folio longiore : rachi rectâ, floribus cernuis quaquaversis obsoletè hexagonis, petalis truncatis, labello basi subcordato.

Epidendrum ophioglossoides. Linn. sp. pl. 1353. Jac. Amer. 225. t. 133. 2.

Epidendrum trigoniflorum. Swartz Prodr. 125.

Dendrobium ophioglossoides. Swartz Nov. Act. Ups. 6. 83.

Stelis ophioglossoides. Swartz! Fl. Ind. Occ. t. 1551. Lindl. in Bot. Reg. 935.

Hab. super arbores in sylvis montosis *Jamaicæ*; Swartz. (v. s. sp. in Herb. Banks. et v. cult.)

2. *STELIS micrantha*. Swartz.

S. folio oblongo-lanceolato coriaceo obtuso, spicâ folio duplò longiore : rachi rectâ, floribus nutantibus secundis trigonis, petalis apiculatis labello conformibus.

Epidendrum micranthum. Swartz Prodr. 125.

Stelis micrantha. Swartz! Fl. Ind. Occ. 1553. Willd. n. 2. Hooker. Fl. exot. t. 158.

Humboldtia parviflora. Fl. Peruv! syst. p. 236.

Stelis parviflora. Pers. syn. no. 8.

Hab. super arbores adque latera rupium in altis montibus *Jamaicæ*; Swartz ; in *Peruvia*; Pavon. (v. s. sp. in Herb. Banks. et Lambert. et v. cult.)

Dr. Hooker represents the pollen masses as cohering by means of a transparent gland. This is however clearly a mistake.

3. *STELIS pusilla*. Kunth.

S. “ spica solitaria folium lanceolatum acutum coriaceum duplò superante, floribus subnutantibus : foliolis calycinis exterioribus subrotundis obtusis trinerviis subæqualibus.” Kunth. in Humb. et Bonpl. n. g. et sp. pl. 1. 361. Synops. 1. 344.

Hab. in Regno *Quitensi*, alt. 1230 hex. florens Maio; Humboldt et Bonpland.

4. *STELIS carnosâ*. Kunth.

S. “ spica solitaria cylindracea folium oblongum obtusum subcarnosum duplò superante ; floribus approximatis erectiusculis ; foliolis calycinis exterioribus ovato-subrotundis enerviis subæqualibus.” Kunth. l. c. Synops. 1. 344.

Hab. in Provincia *Jaen de Bracamoros*, alt. 1000 hex. florens Augusto ; Humboldt et Bonpland.

5. *STELIS floribunda*. Kunth.

S. “ spicis subquaternis folio oblongo obtuso coriaceo duplò longioribus ; floribus subnutantibus ; foliolis calycinis exterioribus ovatis acutiusculis trinerviis internè pubescentibus subæqualibus.” Kunth. l. c. Synops. 1. 344.

Hab. in Andibus *Popayanensium*, alt. 1210 hex. florens Novembri ; Humboldt et Bonpland.

An *Humboldtia polystachya* R. et P. Kunth.

6. *STELIS angustifolia*. Kunth.

S. “ spicis subgeminis folium oblongo-lanceolatum obtusiusculum subcoriaceum æquantibus ; floribus subnutantibus ; foliolis calycinis exteriori-

bus ovatis acutiusculis trinerviis internè pubescentibus subæqualibus." *Kunth. l. c. Synops. 1.345.*

Hab. in Regno *Novo Granatensi*, regione temperata alt. 1004 hex. florens Decembri; Humboldt et Bonpland.

An eadem ac. *S. floribunda*? *Kunth.*

7. *STELIS elongata.* *Kunth.*

S. "spica solitaria folium lanceolatum obtusum subcoriaceum quadruplò superante; floribus nutantibus; foliolis calycinis exterioribus oblongis obtusis trinerviis: superiore cæteris longiore." *Kunth. l. c. Synops. 1.345.*

Hab. in Provincia *Popayanensi*, alt. 480 hex. florens Novembri; Humb. et Bonpl.

8. *STELIS alba.* *Kunth.*

S. "spica solitaria folium oblongum acutiusculum subcoriaceum duplò superante; floribus nutantibus; foliolis calycinis exterioribus ovato-oblongis acutis subæqualibus." *Kunth. l. c. Synops. 1.345.*

Hab. in Prov. *Popayanensi*, alt. 1400 hex. florens Novembri; Humb. et Bonpl.

9. *STELIS macrocarpa.* *Kunth.*

S. "spicis subgeminis folio oblongo obtuso subcoriaceo duplò longioribus; floribus subnutantibus; foliolis calycinis exterioribus subrotundo-ovatis acutiusculis subquinenerviis subæqualibus." *Kunth. l. c. Synops. 1.345.*

Hab. in Regno *Novo Granatensi*, alt. 1360 hex. florens Decembri; Humb. et Bonpl.

Steles omnes alias Willdenovii, sive Humboldtias Floræ Peruvianæ, prætermitto, prout inextricabiles, et descriptionibus miserrimis fretas, omnino Botanices indignis. Species 6 enumerantur, Peruviae propriæ.

VI. OSYRICERA.

Osyricera. *Blume Bijdr. 307. Tabellen 58.*

Sepala subringentia ad basin subconnata: lateralibus omnino concretis. Petala minora. Labellum ventricosum, indivisum cum columnæ ungue calloso articulatum; limbo convexo glanduloso. Columna brevis apice bialata: alis tricuspidatis. Anthera semibilocularis, antea in laminam glandulosam expansa. Pollinia 2, ovalia, pulposo-cereacea.—Herba epiphyta. Folia lineari-lanceolata, pseudobulbis moniliformibus suffulta. Spicæ radicales. Flores purpurescentes. *Character ex Blume.*

1. *Osyricera crassifolia.* *Blume l. c. tab. 58.*

Hab. in arboribus ad montem Salak, Insulæ *Javæ*, florens Decembri, Januario; Blume.

VII. CHRYSOGLOSSUM.

Chrysoglossum. *Blume Bijdr. 337. Tabellen 7.*

Sepala ringentia, basi leviter coalita: lateralibus exterioribus labello suppositis. Petala subæqualia. Labellum basi auriculatum, ungui columnæ

calloso elasticè affixum, internè lineis prominentibus cristatum : limbo sublobato patente. Columna cum ovario continua, utrinque cornuta, basi alata et callosa. Anthera bilocularis. Pollinia 2, subglobosa, angulata, libera.—Herbæ terrestres. Radices annulatæ repentes, fibrillatæ. Folia petiolis subbulbosis suffulta, subsolitaria. Pedunculi radicales. Flores laxè spicati, pedicillati, bracteati. *Character ex Blume.*

1. *CHRYSOGLOSSUM* ornatum. *Blume.*

C. “foliis lanceolatis pedunculisque glabris, labelli lobis rotundatis : medio fornicato.” *Blume l. c.*

Hab. in montosis Salak, ad ripas fluvii Tjapus insulæ *Javæ*, florens Decembri; *Blume.*

2. *CHRYSOGLOSSUM* villosum. *Blume.*

C. “foliis ovato-oblongis pedunculisque villosiusculis, labelli lobis lateralibus acutis.” *Blume l. c. tab. 7.*

Hab. in umbrosis montis Gede, insulæ *Javæ*, florens Maio; *Blume.*

VIII. GASTROGLOTTIS.

Gastroglottis. Blume Bijdr. 397.

Sepala patentia : lateralibus latioribus labello suppositis basique connatis. Labellum ventricosum, internè cum columna connatum : limbo erecto, semitrifido. Columna supernè libera, cum ovario continua, apice attenuata. Anthera dorsalis, bilocularis, denticulo dorsali affixa. Pollinia 4, obovata, per paria filis glutinosis cohærentia.—Planta terrestris. Radices fibrosæ. Caulis simplex erectus. Folia oblongo-lanceolata, plicata. Pedunculus terminalis, elongatus, supernè multiflorus. Flores parvi, sessiles, bracteolati, flavo-virentes. *Char. ex Blume.*

Microstyli proxima sec. Blume.

1. *G. montana. Blume.*

Habitat inter lapides ad marginem fluvii Tjapus, *Javæ*, florens Decembri; *Blume.*

IX. RESTREPIA.

Restrepia. Kunth. n. g. et sp. 1. 367.

Sepala patentia : supremo acuminatissimo, duobus inferioribus obtusis connatis. Petala libera, sepalo supremo conformia. Labellum integrum, liberum, patens, basi bicornè. Columna semiteres. Anthera terminalis. Pollinia 4.—Arborum incola, caulescens, caule haud incrassato, squamis magnis vaginato. Folia plicata. Flores solitarii axillares. *Character ex Kunthio.*

1. *RESTREPIA* antennifera. *Kunth.*

Restrepia antennifera. Kunth. in Humb. et Bonpl. n. g. et sp. pl. 1. 367. t. 94. Synops. 1. 347.

Hab. in declivitate *Andium Paraguayensium*, inter Almaguer et Pasto, ad arborum vetustarum truncos alt. 1480 hex. (Regno Novo Granat.) florens Novembri; *Kunth.*

Folia subrotundo-ovata membranacea petiolo canaliculato. Labellum oblongo-lineare emarginatum seriebus 4 tuberculorum.

X. OBERONIA.

Sepala patentia v. reflexa, sæpius inter se æqualia, libera. Petala sepalis minora, nunc iis conformia, nunc linearia, aliquandò erosa. Labellum ascendens, cum columnâ haud articulatum, formâ variâ, sæpius elongatum, semper magis minusve distinctè 4-lobum: lobis lateralibus nunc dentiformibus, intermediis quandoque ferè connatis. Columna minima, libera, stigmatè elevato. Anthera bilocularis. Pollinia duo, pyriformia, solida. —Herbæ supra arbores et saxa crescentes, sæpius acaules, foliis semper distichis. Scapus sæpius anceps. Flores nunc racemo longissimo verticillati, nunc alterni, virides v. lutei.

This genus is nearly related to *Stelis* from which it is obviously distinguished by its labellum, and its habit. From *Pleurothallis* to which one species has been lately referred it is distinguished both by its habit and by its lateral sepals not cohering in any degree.

Ut Oberon, regiolus ille Dryadeus, Empusarum septentrionalium princeps, in ramos arborum equitat, inter folia vultum multiformem abscondens, sic herbiolæ nostræ, facie non minus mutabiles, in Indiæ sylvis latitant v. in curru suo frondoso triumphant.

1. OBERONIA iridifolia. Lindl. in Wall. Cat. no. 1948.

O. foliis latis ensiformibus, racemo longo basi ancipiti multifloro, floribus verticillatis, bracteis fimbriatis, sepalis reflexis, petalis erosis, labello subovato obtuso fimbriato basi concavo, obsolete 4-lobo.

Malaxis ensiformis. Smith.

Cymbidium iridifolium. Roxb! *Hort. Bengal.* p. 63.

Hab. in *Zeylona* supra arbores, *Macrae*; in *Otaheite*, *J. Banks*; in *Indiæ Orientalis* agro *Napalensi* et *Sillet*. *Wallich.* (hab. s. sp. e museo *Anglo-Indico*; etiam e *Zeylona*.)

Planta statura variabili nunc 3-unciali nunc sesquipedali. Folia ensiformia, recta, *Iridis* cujusdam facie, racemo, nunc longissimo, nunc abbreviato, nutante v. pendulo. Flores numerosissimi, lutei, verticillati, bracteis fimbriatis; quâ notâ semper, quin defloratâ dignoscatur. Sepala arcuè reflexa, ovata, æqualia. Petala minora reflexa. Labellum erectum, marginibus fimbriatis involutis, ita ut primâ fronte integrum videtur (intus barbatum ex *Roxb. mss.*) Capsulæ parvæ obovatæ angulis 6 elevatis.

2. OBERONIA longibracteata.

O. foliis rectis ensiformibus racemo nutanti subæqualibus, scapo ancipiti, bracteis subulatis floribus multò longioribus, labello truncato utrinque lobato.

Hab. in *Zeylona* supra rupes, *Macrae* (hab. s. sp. et v. ic. pict.)

O. iridifoliæ similis quâ differt foliis magis carnosius, bracteis petalisque integerrimis, floribus non verticillatis, demum labelli formâ. Racemus minus elongatus. Flores virides.

3. OBERONIA caulescens. Lindl. in Wall. Cat. no. 1950.

O. caulescens, foliis ensiformibus angustis subfalcatis, racemo subflexuoso apice evanescente, floribus alternis, labello elongato cuneato bilobo basi carnosio obtusè bidentato.

Hab. in *Napalia*; *Wallich.* (hab. s. sp. e museo *Anglo-Indico*).

4. OBERONIA anthropophora. *Lindl. in Wall. Cat. no. 1951.*

O. foliis ensiformibus subfalcatis, spicâ nutante apice evanescente, floribus verticillatis, petalis linearibus, labelli trilobi lobo medio elongato bifido.

Hab. in Tavoy, *Indiæ Orientalis*; *Wallich. (hab. s. sp. e museo Anglo-Indico.)*

Flores minutissimi. Sepala æqualia ovata obtusa. Labellum basi concavum lobis lateralibus brevibus semiovatis acutis.

5. OBERONIA bicornis. *Lindl. in Wall. Cat. no. 1949.*

O. foliis brevibus subundulatis ovatis, racemis multifloris nutantibus, floribus subverticillatis, petalis ovatis, labello truncato sublunato basi bicorni, sepalis patentibus lateralibus brevioribus.

Hab. in Sillet. *Indiæ Orientalis*; *Wallich. (hab. s. sp. e museo Anglo-Indico.)*

Herba floribunda, cæspitosa, foliis subundulatis. Racemi numerosi, apice recurvi. Sepalum supremum ovato-lanceolatum, lateralibus multo brevioribus ovatis. Petala minora, ovata, acuta. Labellum breve, cucullatum, truncatum, basi in cornubus duobus membranaceis, utroque costâ mediâ elevatâ ad basin connatâ instructo.

6. OBERONIA brevifolia.

O. foliis brevibus ovatis, racemo stricto, labello oblongo basi cucullato apice crenulato, bracteis ovali-lanceolatis ovarii longitudine.

Epidendrum equitans. Forst! Prodr. n. 316.

Cymbidium equitans. Swartz. n. act. Ups. 6. p. 72. Willd. n. 14. Thouars, t. 92.

Pleurothallis disticha. Act. Rich. orch. 55. t. 8. f. 1.

Hab. in *Societatis insulis, Forster*; *Mauritiæ et Borboniæ, Thouars. (v. s. in herb. Lambert. a Forstero ipso, et examinavi.)*

Hujus loci procul dubio est *Ep. equitans, Forst.* ut e speciminibus patet in *Herb. Lamb. asservatis*. Cum tamen *C. equitans Herb. Banks.* sit *O. iridifolia, Wallichii O. caulescens, Blumii O. spatulata*, et folia totius generis sint equitancia, nomen specificum mutare ausus sum.

7. OBERONIA Myosurus. *Lindl. in Wall. cat. no. 1947.*

O. foliis carnosiss linearibus rectis racemo æqualibus, capsulis sphæricis hexangularibus, floribus

Epidendrum Myosurus. Forst! Prodr. n. 317.

Dendrobium Myosurus. Swartz. n. act. Ups. 6. 82. Willd. n. 4.

Hab. in *Societatis insulis, Forster*; in *Napalia, Wallich. (v. s. in Herb. Banks. et hab. s. sp. e museo Anglo-Indico, omnibus defloratis.)*

Herba parva, vix 4 uncias altitudine attingens, foliorum formâ et racemo brevi præcipuè distinctum floribus ignotis. Folia ferè semper emarginata v. truncata sunt; hoc tamen casu quodam, potiusquam naturâ, accidisse opinor.

8. OBERONIA spatulata.

O. "caule simplici folioso, foliis ensiformibus ad medium ferè vaginatis approximatis rectis aut recurvis, labelli limbo spatulato emarginato." *Blume.*

Malaxis equitans. Blume p. 395.

Hab. in truncis arborum Provinciarum occidentalium *Javæ insulæ*, florens Septembri; *Blume.*

9. OBERONIA lunata.

O. "foliis paucis ensiformibus basi vaginatis subincurvis, labelli limbo semilunato denticulato, capsulis oblongis." *Blume.*

Malaxis lunata. Blume p. 394.

Hab. in arboribus sylvarum montis Salak, *Javæ*, florens Octobri Februario; *Blume.*

10. OBERONIA monstrosa.

O. "caule simplice lato-folioso, foliis remotis ensiformibus subincurvis, spicâ elongatâ densiflorâ." *Blume.*

Malaxis monstrosa. Blume p. 395.

Hab. locis umbrosis ad montem Pantjar, *Javæ*, frugens Junio; *Blume.*

"Species singularis O. equitanti affinis."

11. OBERONIA imbricata.

O. "caule simplice folioso, foliis compressis vaginatis confertè imbricatis, labelli limbo ligulato denticulato." *Blume.*

Malaxis imbricata. Blume p. 395.

Hab. in sylvis humidis montium Gede, Salak, &c. *Javæ*, florens Septembri Decembri; *Blume.*

12. OBERONIA microphylla.

O. "subcaulescens, foliis paucis angusto-ensiformibus basi vaginatis subincurvis, sepalis interioribus erosis, labelli limbo producto rotundato emarginato." *Blume.*

Malaxis microphylla. Blume p. 395.

Hab. in elatis montis Salak, *Javæ*, florens Junio; *Blume.*

"Flores miniati. Capsulæ triquetrae."

13. OBERONIA similis.

O. "foliis paucis ensiformibus basi vaginatis subrectis, labelli limbo semitrifido eroso: lobo medio elongato bifido, capsulis obovato-globosis." *Blume.*

Malaxis similis. Blume p. 394.

Hab. in arboribus sylvarum montis Salak, *Javæ*, florens Januario, &c. *Blume.*

"Ab O. lunata differt foliis angustioribus minus arcuatis, labelli et capsularum forma." *Blume.*

XI. EMPUSA.

Empusa, Lindl. in Bot. Reg. 825.—Empusaria, Reichenbach Conspectus p. 69.

Sepala patentia; lateralia basi inæqualia, cum basi labelli obliquè connata eoque supposita; supremum et petala linearia patentia. Labellum erectum, cucullatum, basi auriculatum, cum columna connatum, bituberculatum, limbo patente indiviso. Columna elongata, semiteres, arcuata, apice utrinque alata. Anthera bilocularis. Pollinia 4, collateralia (oo oo).—Herba epiphyta, foliis membranaceis plicatis, racemo terminali multifloro.

1. EMPUSA paradoxa. *Lindley.*

Malaxis lancifolia. Smith! in Rees.

Empusa paradoxa. Lindl. in Bot. Reg. 825. Wall. Cat. Herb. Ind. no. 1937.

April, 1830.

Hab. supra arbores ad Tokam *Napaliæ*, etiam in *Kamoon*, *Wallich*. (*hab. s. sp. e museo Anglo-Indico*).

Caulis pedalis et ultra, angulis membranaceis. Folia elliptico-oblonga, plicata, acuminata, 6-8 pollices longa. Racemus terminalis, 5-6 pollices longus, multiflorus. Flores ochroleuci, inodori. Sepala lateralialia semi-ovata, obtusa, obliquè cum basi labelli accreta eoque supposita: supremum lineare duplò longius. Petala linearia reflexa. Labellum retusum cum mucrone.

XII. PLATYSTYLIS.

Malaxis § 2. Platystylis. *Blume Bijdr. p. 389. tabell. f. 54.*

Sepala patentia, libera; lateralialia labello supposita, supremo angustiora. Petala filiformia. Labellum ascendens, indivisum, medio sulcatum, etuberculatum. Columna dilatata, compressa, erecta, disciformis, stigmate marginato. Anthera parva bilocularis. Pollinia 4, collateralialia.—Herbæ epiphytæ, habitu *Liparis* veræ.

1. PLATYSTYLIS decurrens.

P. “bulbis ovatis compressis, foliis binis lanceolatis carinatis, pedunculo nutante, bracteis ovatis decurrentibus, labello utrinque dente instructo, limbo ovato convexo.” *Blume*.

Malaxis decurrens. *Blume p. 390, tab. 54.*

Hab. in truncis arborum ad montem Salak, *Javæ*, florens Maio Octobri; *Blume*.

“Flores dilutè aurantiaci. Sepala margine recurvata, papillosa. Labellum internè glandulâ excavatâ munitum.” *Blume*.

2. PLATYSTYLIS atropurpurea.

P. “bulbis ovatis compressiusculis vaginatis, foliis binis ovatis, pedunculo erecto pentagono, bracteis lineari-lanceolatis carinatis, labelli limbo emarginato cum mucrone.” *Blume*.

Malaxis atropurpurea. *Blume p. 390.*

Hab. in paludosis montis Salak, *Javæ*, florens Octobri; *Blume*.

“Flores atropurpurei, in summo pedunculo conferti; sepala exteriora trinervia; labellum margine ciliolatum.” *Blume*.

XIII. MICROSTYLIS.

Microstylis, *Nutt. gen. Amer. 2. 196. Lindl. orch. scel. no. 135.—Crepidium, Blume Bijdr. 387. tabell. fig. 63.*

Sepala patentia, libera; lateralialia basi æqualia, sæpius breviora. Petala patentia, linearia v. filiformia. Labellum patentissimum, cum columnâ angulum rectum formans, basi excavatum, sagittatum v. auriculatum, integerrimum v. dentatum, tuberculis nullis. Columna minima, rarò paululum elongata, apice dentibus s. auribus duabus instructa. Anthera bilocularis. Pollinia 4, collateralialia.—Herbæ terrestres v. epiphytæ habitu *Liparis*, foliis plicatis v. membranaceis basi rarò incrassatis. Flores herbacei, nunc flavescentes v. discolores.

1. MICROSTYLIS monophyllos.

M. caule unifolio, racemo rarifloro, labello acuminato integerrimo.

Ophrys monophyllos. *Linn.*

Epipactis folio unico, &c. *Hall. Helv. t. 36.*

Monorchis ophioglossoides. *Mentzelius pug. t. 5. f. 1. 2.*

Malaxis monophyllos. *Willd. no. 4.*

Hab. in *Europæ* paludibus, sylvaticis, alpestribusque; etiam in *America septentrionali* propè Halifax; *Gouldie (hab. s. sp.)*

Variat foliis binis, *Swartz in Fl. Ind. Occ. p. 1443*; quæ *Ophrys bifolia*, *Flora Suecica 2. 811.*

2. MICROSTYLIS ophioglossoides. *Nuttall.*

M. caule unifolio, racemo obtuso capitato multifloro, labello tridentato. *Lindley in Botanical Register, fol. 1290.*

Malaxis unifolia. *Michaux.*

Malaxis ophioglossoides. *Willd. no. 3. Lodd. Bot. Cab. t. 1116 bona.*

Microstylis ophioglossoides. *Nutt. gen. 2. 196.*

β ; *mexicana*; caule pedali, racemo densiore, labelli dente mediâ lateralibus minore. *Bot. Reg. t. 1290.*

Hab. in *America septentrionali* ad radices arborum, in Canada (*Gouldie*), Nova Scotia (*Menzies*), New Jersey (*Nuttall*)— β in *Mexico*. (*hab. s. sp.*; β . *hab. s. sp. et v. v. c.*)

Varietas Mexicana vix differt nisi staturâ majore; eadem habet folium solitarium oblongum atroviride, eundem racemum depressum quasi umbellatum demum in cylindrum abeuntem, eosdem flores cum eodem labello truncato equitante cujus dens intermedia lateralibus minor.

3. MICROSTYLIS diphyllus.

M. "foliis duobus ovatis lanceolatisve acutis lævibus, scapo triquetro, labello subrotundo acuminato, acumine lacinias haud superante." *Chamisso.*

Malaxis diphyllus. *Chamisso in Linnæa 3. 34.*

Hab. "in turfosis convallium infimorum *Unalaschkæ* solitariò proveniens;" *Chamisso.*

4. MICROSTYLIS umbellulata.

M. caule diphylo, foliis ovato-lanceolatis acuminatis margine subundulatis longissimè vaginantibus reticulato-venosis, floribus umbellatis.

Malaxis umbellulata. *Swartz! Prodr. p. 119. Fl. Ind. Occ. p. 1444. Willd. no. 2.*

Hab. nemorosa subhumida in montibus altis *Jamaicæ* australis; *Swartz. (v. s. sp. in Herb. Banks.)*

Scapus pentagonus. Flores *Microstylis spicatae*. (ex *Swartz*). Inflorescentia *M. ophioglossoidis junioris*.

5. MICROSTYLIS spicata.

M. caule diphylo, foliis cordatis, scapo tetragono, labelli trilobi lobo medio elongato.

Malaxis spicata. *Swartz! Prodr. p. 119. Flora Indiæ Occ. p. 1441. t. 28. figg. a. b. c. Willd. no. 1.*

Hab. in locis depressis montium *Jamaicæ*; *Swartz. (v. s. sp. in Herb. Banks.)*

Scapus pedalis. Spica 2-3 pollicaris, floribus approximatis magnitudine *Malaxis paludosæ*, pallidè virentes. Capsula tricarinata. *Swartz.*

6. *MICROSTYLIS Wallichii*. *Lindl. in Wall. Cat. no. 1938.*

M. caule folioso, foliis oblongis acuminatis, racemo elongato rarifloro, sepalis oblongo-linearibus, petalis filiformibus supremo brevioribus, labello ovali apice leviter bifido.

Hab. in *Napalia* et *Sillet*, *Indiæ Orientalis*, *Wallich*. (*hab. s. sp. e Museo Anglo-Indico benigne communicatum*).

In sicco folia semper discoloria, dum in *M. biloba* vicina sunt pallidè viridia. Flores lividi ex icone et schedis *Wallichianis*.

7. *MICROSTYLIS biaurita*. *Lindl. l. c. no. 1941.*

M. caule folioso, foliis ovato-oblongis acuminatis, racemo denso multifloro, labello acuminato obtuso integerrimo basi bicristato, columnæ alis petaloideis, sepalis lateralibus petalisque secundis.

Hab. in *Pundua*, *Indiæ Orientalis*; *Wallich*. (*hab. s. sp. e Museo Anglo-Indico.*)
Spithamæa, racemo ultra folia paulò evecto.

8. *MICROSTYLIS biloba*. *Lindl. l. c. no. 1940.*

M. caule folioso, foliis oblongis acuminatis, racemo elongato rarifloro, sepalis oblongis, petalis linearibus truncatis supremo æqualibus, labello ovato apice bilobo: sinu aperto.

? *Malaxis acuminata*. *Don. Prodr. 29.*

Hab. in *Napalia* et *Ava*, *Indiæ Orientalis*, *Wallich*. (*hab. s. sp. e Museo Anglo-Indico.*)

Herba gracilis pedalis. Flores verosimiliter flavescentes. *M. Wallichii* valdè affinis characteribus datis abundè diversa.

9. *MICROSTYLIS discolor*.

M. caule folioso, foliis ovato-oblongis abruptè petiolatis undulatis plicatis, labello ovato integerrimo basi cucullato, columnâ apice bicorni, sepalis petalisque secundis.

Hab. in pratis apricis ad latera collium *Zeylonæ*, florens Julio; *Macrae*. (*hab. s. sp. et v. ic. pict.*)

Herba 6 uncias alta, foliis purpureis, floribus luteis in purpureo mutabilibus.

10. *MICROSTYLIS purpurea*.

M. caule folioso, foliis ovato-oblongis abruptè petiolatis plicatis, labello bifido acuminato basi longè equitante, sepalis obtusis, petalis linearibus truncatis, columnâ apice apterâ.

Hab. in umbrosis ad ripas fluminum *Zeylonæ*, florens Septembri; *Macrae*. (*hab. s. sp. et v. ic. pict.*)

Caulis pedalis pentaphyllus, racemo denso ovato, floribus atropurpureis.

11. *MICROSTYLIS flavescens*.

M. "foliis ovato-lanceolatis, labello integerrimo." *Blume*.

Crepidium flavescens. *Blume p. 388.*

Hab. in cacumine montis *Burangrang* *Provinciae Krawang insulæ Java*, florens Junio; *Blume*.

An eadem ac *Microst. discolor*.

12. *MICROSTYLIS versicolor.*

M. caule folioso, foliis cordato-v. ovato-oblongis abruptè petiolatis undulatis plicatis, labello transverso anticè dentato basi cucullato parum equitante, columnâ apice bicorni, sepalis petalisque secundis.

Hab. in India Orientali, Hayne in Museo Anglo-Indico; in pratis apricis ad latera collium Zeylonæ, florens Julio; Macrae. (hab. s. sp. et v. ic. pict.)

M. Rheedii valdè affinis, sed distincta staturâ minore, foliorum formâ et florum magnitudine. Illius equidem analysis me fefellit, diversas tamen esse proculdubio existimo. Flores lutei in purpureo mutabiles.

I do not think there are any materials in this country sufficient for determining exactly what the *Malaxis Rheedii* of Swartz is, or rather the *Basaala Poulou-Maravara* of the Hortus Malabaricus upon which that species was founded. Of a *Microstylis* from India answering to Rheede's figure I have seen no specimen. The *Epidendrum resupinatum* of Forster which is referred to it as a synonym, exists in the Banksian Herbarium, and there is also a drawing of that species in the same collection, and these agree extremely well with the Hortus Malabaricus figure: but they are undoubtedly distinct from *M. versicolor* in their greater size and much larger oblong-lanceolate leaves. Their flowers I have not analysed, but if the *Crepidium Rheedii* of Blume belongs to *Malaxis Rheedii*, which I scarcely doubt, the flowers are essentially distinct also.

13. *MICROSTYLIS Rheedii.*

M. caule folioso, foliis oblongo-lanceolatis plicatis, labello truncato dentato basi longè equitante.

Epidendrum resupinatum. Forst.! fide iconis Forsterianæ in Bibliotheca Banksiana.

Malaxis Rheedii. Willd. no. 5.

? *Crepidium Rheedii. Blume p. 387. f. 63.*

Hab. in India Orientali, Rheede; in sylvis opacis Javæ, Blume; in insula Otaheite; Banks. Forster. (v. s. sp. deflor. in Herb. Banks.)

Variat foliis purpurascens et viridibus. Blume.

Obs. Columna apice alata diptera, alis subquadratis, si planta Blumii eadem: specimina in Herb. Banks. deflorata nihil docent.

† 14. *MICROSTYLIS? macrostachya.*

Ophrys macrostachya. Llave nov. veg. Mex. 2. 9.

“*Planta terrestris habitu gracilis. Radix bulbo unico oblongo. Folium unicum, radicale, ovatum, vaginans, uninerve; squamulæ foliaceæ basin amplexantes. Scapus tetragonus, longissimus, erectus. Flores spicati, sessiles, conferti, bracteis linearibus cincti. Perigonium herbaceum, 5-fidum. Segmenta tria exteriora ovata, patentia; duo lateralia angustiora lunulata. Labellum concavum, subrotundum, concolor, obtusè acuminatum. Gynostemium brevissimum. Anthera bilocularis ad apicem. Pollinis massulæ duæ minutissimæ. Stigma non aspectabile.*” *Llave l. c.*

Hab. in Mexico propè Jesus del Monte, juxta Vallisoletum, florens Augusto; Llave.

XIV. DIENIA.

Dienia, Lindley in *Bot. Reg.* 825. *Pedilea*, Lindl. in *Hook. Fl.* 115. in notis.
Orch. scel. no. 144. c. ic.

Sepala patentia, libera; lateralibus basi æqualia sæpius breviora. Petala filiformia patentia. Labellum erectum, basi cum columna accretum, etuberculatum, nunc concavum membranaceum acutè trilobum, nunc excavatum margine callosum apice trilobum, v. integrum. Columna elongata, semiteres, recta, clavata, cum labello concavo minutissima. Anthera bilocularis. Pollinia 4, collateralia (oo oo).—Herbæ terrestres, foliis basi parum incrassatis, membranaceis, plicatis. Scapus teres v. saltem apterus. Flores parvi, herbacei v. fusci, racemosi, v. spicati, terminales, angulis fructus sæpè crispis.

This genus differs from *Liparis* chiefly in the shortness and straightness of the column connected with a three lobed concave erect or excavated lip, which is scarcely recurved about the middle, and which has never any tubercles at its base. The column of *Liparis* is always arcuate. From *Microstylis*, with which it agrees in the shortness of the column, it is distinguished by its lip being parallel with the column, not at right angles with it, and neither sagittate nor cordate at the base.

1. *DIENIA congesta*. Lindley in *Wall. Cat.* no. 1936.

D. caule folioso, foliis oblongo-lanceolatis acuminatis plicatis, spicâ densâ cylindraceâ, perianthii laciniis secundis, labello oblongo excavato apice calloso tridentato: dentibus obtusis intermedio ovato.

Malaxis latifolia. Smith! in *Rees*.

Dienia congesta. Lindl. in *Bot. Reg.* 825.

Hab. in *Napalia*, Wallich; in *China*, Reeves. (*hab. s. sp. e Museo Anglo-Indico; v. ic. pict. sinens. in Bibl. Hort. Soc.*)

Planta terrestris pedalis v. ultra. Scapus apice spicatus, floribus luteo viridibus, minutis, densis, in cylindrum collectis. Sepala lineari-lanceolata obtusa; lateralibus a labello recurvis. Petala filiformia patentia. Labellum cum columna parallelum, excavatum, cucullatum, apice callosum tridentatum, dentibus obtusis, intermedio ovato. Columna semiteres excavationis labelli longitudine, apice bialata. Ovarium et capsula angulis membranaceis undulatis.

2. *DIENIA fusca*.

D. caule folioso, foliis oblongo-lanceolatis petiolatis acuminatis plicatis, spicâ densâ ovatâ cylindraceâ, perianthii laciniis secundis, labello subrotundo excavato apice calloso tridentato vix cucullato: dentibus obtusis intermedio conico.

Hab. in *Zeylona* in montibus, Macrae (*hab. s. sp. et v. ic. pict.*)

Priori valdè affinis. Flores fusco-purpurei.

3. *DIENIA cylindrostachya*. Lindl. l. c. no. 1934.

D. caule unifolio, folio ovato obtuso, spicâ densâ cylindraceâ, perianthio explanato, labello excavato apice calloso subintegro, columnâ brevissimâ.

Hab. in *Napalia*, Wallich. (*hab. s. sp. e Museo Anglo-Indico.*)

Planta habitu *Microstylis monophyllæ* sed floribus densioribus distinguenda. Palmaris v. sesquipedalis. Perianthium explanatum. Sepala ovata

acuta. Petala filiformia. Labellum ovatum, excavatum, basi subcucullatum, apice callosum obtusum obsoletè trilobum. Columna brevissima.

4. DIENIA muscifera. *Lindl. l. c. no. 1935.*

D. caule diphylo, foliis latis oblongis obtusis, racemo rarifloro, perianthio explanato, labelli trilobi laciniâ mediâ sepalsque lateralibus acuminatis, columnâ brevissimâ.

Hab. in *Napalia*, *Wallich.* (*hab. s. sp. e Museo Anglo-Indico.*)

D. Gmelini valdè affinis sed omnibus partibus major. Pedalis v. sesquipedalis. Folia multò latiora. Racemus rariflorus, aliquando 9 uncias longus. Flores herbacei. Sepala lateralia acuminata ovato-lanceolata: supremum acutum. Labellum posticum, cucullatum, medio tricostatum, margine calloso, dentibus lateralibus abbreviatis, intermedio acuminato. Capsulæ oblongæ, membranaceæ, apteræ.

5. DIENIA Gmelini.

D. caule diphylo, foliis oblongis obtusis, racemo rarifloro, perianthio explanato, labelli trilobi laciniis acutis, columnâ brevissimâ.

Orchis radice subrotunda, labello hastato. *Gmelin! sib. 1. 18. t. 4. f. 1. bona.*

Hab. in *Sibiria*; *Gmelin.* (*hab. s. sp.*)

Sepala ovata acuta. Petala filiformia sepalo supremo æqualia. Labellum cucullatum, posticum, concavum, non excavatum, tridentatum, dentibus acutis: lateralibus multò minoribus. Scapus 9 uncias altus. Flores minutissimi herbacei.

Debeo benevolentiae amicissimi Prescott.

6. DIENIA calycina.

D. caule monophyllo, folio oblongo obtusiusculo, spicâ elongatâ tereti, sepals subrotundo-ovatis petalisque linearibus patentibus, labelli nani cuneati trilobi lobis lateralibus incurvis intermedio ovato patente, columnâ brevissimâ.

Ophrys monophyllos. *Pavon. in Herb. Lambert.*

Hab. in *Mexico*; *Pavon.* (*exam. s. sp. in Herb. Lamb.*)

Sesquipedalis, gracilis. Capsulæ obovatæ, obtusangulæ.

7. DIENIA Myurus.

D. caule folioso, foliis binis inferiore oblongo obtuso: superiore ovato, spicâ densâ cylindraceâ, labello ovato excavato integro, petalis filiformibus reflexis.

Pedilea. *Lindl. orch. scel. no. 144. p. 27. c. ic.*

Hab. in *Mexico*; *Pavon.* (*exam. s. sp. in Herb. Lambert.*)

Habitus quodammodo *Microstylis ophioglossoidis*. Caulis pedalis. Flores minimi, virides. Pollinia 4, per paria cohærentia, olim malè visa et pro 2 habita; unde genus nostrum spurium *Pedilea*.

XV. MALAXIS.

Malaxis, *Swartz act. Holm. 1800. p. 233. t. 3. P.*

Sepala patentia, libera, subæqualia. Petala sepals duplò minora, conformia. Labellum posticum, ascendens, concavum, integerrimum, et tuberculatum, petalis conforme. Columna minima, teres, apice utrinque dentata.

Anthera bilocularis. Pollinia 4 incumbentia (♂ ♂).—Herba paludosa, foliis paucis venosis basi carnosis. Flores racemo stricto dispositi, luteo virides.

Obs. In my Synopsis of the British Flora the number of pollen masses is erroneously said to be 2. Their real number and position were first made known to me by Mr. Bauer's drawings; the position in which the pollen masses lie, one upon the other instead of side by side, gives them the appearance of being 2 instead of four, and caused the error here adverted to.

1. *MALAXIS paludosa*. Swartz.

Ophrys paludosa. Linn. sp. pl. 1341.

Malaxis paludosa. Swartz l. c. p. 127. t. 6. f. 2. Willd. n. 7. Eng. Bot. 72.

Hab. in paludosis et turfosis Europæ septentrionalis. (hab. s. sp. et v. v. sp.)

Quid ?

M. Brasiliensis; caule vaginato, foliis lanceolatis coriaceis, racemo spicato, sepalis interioribus angustis, labello trilobo connivente, lobo medio acuto apice subcorneo. Habitat in Brazil. Spreng. syst. 3. 740.

XVI. NEPHELAPHYLLUM.

Nephelaphyllum, Blume Bijdr. 372. tabellen 22.

Sepala et petala linearia, patentissima v. reflexa. Labellum calcaratum, integerrimum, liberum, lineâ mediâ elevatâ, limbo petaloideo cum columna parallelo. Columna semiteres. Anthera carnosâ, triangularis! bilocularis. Pollinia 8, subquadrata.—Herbæ terrestres, subcaulescentes, glabræ, foliis ovatis, petiolatis, plicatis, suprâ nebulosis (unde nomen), subtus purpurascens, pedunculo terminali multifloro, floribus pedicellatis.

Character ex icone et descriptione Blumii.

1. *NEPHELAPHYLLUM tenuiflorum*. Blume.

N. " floribus laxè spicatis cernuis, labello limbo intus rugoso-muricato." *Blume l. c.*

Hab. in sylvis altioribus montis Salak insulæ Javæ; Blume.

2. *NEPHELAPHYLLUM pulchrum*. Blume.

N. " floribus densè spicatis, labelli limbo intus lineis tribus muricatis." *Blume l. c. t. 22.*

Hab. in locis humidioribus sylvarum Salak insulæ Javæ, florens Januario-Aprili: *Blume*.

XVII. ACIANTHUS.

Acianthus. R. Br. Prodr. 1. 321.

Sepala subringentia, acuminatissima, libera: lateralibus labello suppositis. Petala minora acuminata. Labellum liberum, integrum, basi bicallosum, disco nudo. Columna semiteres, clavata. Anthera terminalis, recumbens, bilocularis. Stigma ovatum, transversum. Pollinia 8, ad basin in materie granulosa v. subpulverea solubilia.—Herbæ teneræ, glabellæ. Tuberes indivisi, solitarii, nudi, novello pedicellato. Caulis unifolius,

ad ipsam basin vaginâ brevi inclusus, supernè ebracteatus. Folium profundè cordatum, reticulato-venosum, subtus rufum. Flores racemosi, v. solitarii, rufi.

Character e descriptione R. Brownii, et Aciantho exserto.

Genius medium tenens inter Malaxideas et Arethuseas quoad polliniorum fabricam.

1. ACIANTHUS exsertus. R. Br.

A. floribus racemosis, aristis brevissimis, galeâ basi attenuatâ foliolis interioribus horizontaliter reflexis, labello apice papuloso, columnâ exsertâ. R. Brown Prodr. 321.

Acianthus fornicatus. Sieber! Fl. N. Holl. n. 159.

Hab. ad Portum Jackson Novæ Hollandiæ, R. Brown. Sieber, Caley (hab. s. sp.)

2. ACIANTHUS fornicatus. R. Br.

A. floribus racemosis, aristis perianthio quadruplò brevioribus, foliolis interioribus erectiusculis, labello longitudinaliter papuloso, columnâ inclusâ. R. Brown! Prodr. 321.

Hab. ad Portum Jackson Novæ Hollandiæ, R. Brown, (hab. s. sp. comm. a celeberr. Brown.)

3. ACIANTHUS caudatus. R. Br.

A. scapo 1-2-floro, aristis longissimis, folii marginibus undulatis. R. Brown Prodr. 321.

Hab. ad Portum Jackson Novæ Hollandiæ; R. Brown.

4. ACIANTHUS? bifolius. R. Br.

A. scapo unifloro, foliis radicalibus binis cucullatis, perianthio mutico, foliolis 3 exterioribus conformibus: lateralibus reflexis, interiorum? lateralibus angusto-linearibus. R. Brown Prodr. 322.

Epipactis reflexa. Lab. Nov. Holl. t. 211. f. 1.

Hab. in Insula Van Diemen, Labillardière, R. Brown.

Generis dubii sec. cl. Brown, medium tenens inter Acianthum et Chiloglottim suam, cum illo numero polliniorum conveniens, cum hac foliis radicalibus binis, et sepalis muticis.

XVIII. CYRTOSIA.

Cyrtosia. Blume Bijdr. 396. tabellen 6.

Sepala et petala conniventia. Labellum carnosum, concavum, intùs discoideum, cum columna infernè connexum: limbo rotundato v. emarginato recto. Columna subincurva, supernè dilatata aut subalata. Anthera carnea, bilocularis, columnam posticè terminans. Pollinia 2, reniformia, farinoso-pulposa, libera. Capsula siliquæformis, carnea. Semina tunicata.—Herbæ terrestres, caulescentes. Radices tuberosæ, conglobatæ, diffformes. Caules aphylli, (stipulis instructi!?) Flores spicati, v. paniculati, bracteolati.

Character ex Blume. An potius Neottia? An Vanillæ et Epistephio affinior?

April, 1830.

1. CYRTOSIA javanica. *Blume.*

C. "caulibus subsimplicibus, labello intus disco hirsuto instructo, limbo rotundato." *Blume l. c. tab. 6.*

Hab. in altioribus montium insulæ *Javæ*, florens Augusto; *Blume.*

2. CYRTOSIA altissima. *Blume.*

C. "caulibus ramosis scandentibus (50-70 ped. altitud.) labello intus cristato, limbo semitrilobo." *Blume l. c.*

Hab. in montanis Seribu, insulæ *Javæ*, florens Aprili-Junio; *Blume.*

XIX. LIPARIS.

Liparis, *Rich. orch. Eur.* 30. f. 10.—*Sturmia*, *Reich. conspectus* p. 69. n. 1564.—*Cestichis*, *Thouars orch. Afr.* t. 90.

Sepala patentia, libera; lateralibus basi æqualia sæpius breviora. Petala sepalis angustiora, rarè æqualia, linearia v. filiformia. Labellum ascendens v. erectum, basi cum columna paululum accretum, supra basin sæpius bituberculatum, integrum, nunc mucronibus aliquot sed lobis nullis. Columna elongata, semiteres, incurva, apice marginata. Anthera bilocularis. Pollinia 4, collateralia (oo oo).—Herbæ terrestres v. epiphytæ, foliis basi in pseudo-bulbum concretis, nunc membranaceis plicatis, nunc subcoriaceis venis minùs distinctis. Scapus teres v. angulatus, v. anceps. Flores parvi, herbacei, racemosi, rarè lutei v. albi.

SECT. I. *Folia membranacea, plicata. Plures terrestres.*

LIPARIS vera.

1. LIPARIS Rheedii.

L. "bulbis subcylindræis, foliis pluribus ovato-lanceolatis, pedunculo erecto tetraquetto, bracteis semilanceolatis, limbo rotundato crenulato." *Blume.*

Malaxis Rheedii. *Blume p.* 389. *tab.* 54.

Hab. in sylvis umbrosis montium Seribu, *Javæ*, florens Februario; *Blume.*

"Sepala margine reflexa, sordidè purpurascentia; labellum luteum; gynostemium purpurascens. Folia membranacea." *Blume.*

2. LIPARIS nervosa.

L. foliis pluribus ovato-oblongis undulatis acutis racemo sparso paucifloro brevioribus, scapo angulato, floribus longè pedunculatis cernuis, labello cuneato (ovato sulcato emarginato *Th.*) retuso basi bicalloso.

Ophrys nervosa. *Thunb. Jap.* 27.

Epidendrum nervosum. *Thunb. ic. pl. Jap. t.* 10.

Malaxis nervosa. *Swartz act. Holm.* 1800. p. 235. *Willd. n.* 10.

Hab. in *Japonia*, juxta *Osacca* et *Jedo*, florens Junio et Maio; *Thunberg*; in *China*; *Reeves. (v. ic. pict. sinens. in Bibl. Hort. Soc.)*

Flores purpurei. Folia palmaria.

† 3. LIPARIS odorata.

L. foliis oblongo-lanceolatis plicatis, racemo erecto multifloro, scapo trigono, labello ovato concavo, floribus flavo-viridibus.

Kattou pounam marawara. *Rheede mal.* 12. p. 55. t. 28.

Malaxis odorata. *Willd. n.* 6.

Hab. in *India Orientali*; Rheede.

This is an obscure plant of which no modern botanist seems to have seen a specimen. It is, if correctly described, distinguishable from *L. elata* by its flowers being sweetscented and yellowish green, with an ovate lip.

4. *LIPARIS elata*. Lindley.

L. foliis pluribus oblongis acutis plicatis racemo erecto multifloro brevioribus, scapo angulato, labello obovato retuso basi bicalloso purpureo, sepalis herbaceis lateralibus obliquè recurvis.

Cymbidium? *veratrifolium*. Wallich in *iconibus Musei Anglo-Indici* no. 634.

Liparis bituberculata. Lindl. in *B. Reg.* 882.

Cymbidium? *bituberculatum*. Hooker *Exot. Fl.* t. 116. (polliniis erroneis.)

Liparis elata. Lindley in *Bot. Reg.* t. 1175.

Hab. in *India Orientali*, Wallich; etiam in *Brazilia* (v. v. cult.)

I was formerly of opinion that the Brazilian and Indian plants were different; but more recent observation and the inspection of Dr. Wallich's Indian drawings have induced me to combine them. I presume there is no doubt of the plant in the Garden of the Horticultural Society, from which *L. elata* was originally described, being really of Brazilian origin; and yet it is undoubtedly possible that there may have been some transposition of labels. I do not adopt the older specific name of *bituberculatum* because it is expressive of a character common to every species of the genus.

5. *LIPARIS olivacea*. Lindl. in *Wall. cat.* no. 1942.

L. foliis binis v. solitariis subrotundis cordatis, v. oblongis acuminatis plicatis racemo erecto multifloro brevioribus, scapo basi tereti, labello obovato retuso cum mucrone basi bicalloso, sepalis obtusis: lateralibus labello suppositis.

Hab. in *Napalia*, Wallich. (hab. s. sp. e Museo Anglo-Indico benignè communicatum et v. ic. pict.)

Pseudo-bulbus ovatus vaginis obtusis tectus. Folia 1 v. 2, sessilia, in icone cordata subrotunda acuta, in exemplare angustiora. Scapus angulatus, foliis multo longior. Racemus multiflorus. Flores olivacei. Sepala obtusa; lateralibus labello supposita, patentia. Petala subulato-linearibus, acuta. Labellum subrotundum, cuneatum cum mucrone, basi bicallosum. Columna apice alata, basi labello accreta.

6. *LIPARIS barbata*.

L. foliis binis oblongis acuminatis plicatis racemo paucifloro subcorymboso subæqualibus, labello cuneato barbato basi sulcato.

Hab. in pratis ad latera collium *Zeylonæ*, florens Novembri, Macrae. (hab. s. sp. et v. ic. pict.)

Herba pusilla, 4-uncialis, caulibus carnosissimis fusiformibus teretibus vaginatis. Folia 3, oblonga, acuminata, venosa. Racemus subcorymbosus foliis brevior. Flores virides. Columna apice aptera v. levissimè tantum marginata.

L. purpurascens valdè similis.

7. *LIPARIS purpurascens*. Lindley.

L. foliis 2-3 cordatis ovatisve acutis undulatis plicatis racemo corymboso paucifloro subæqualibus, labello subrotundo dentato emarginato.

Ophrys salassia. *Herb. Commers. sec. A. Rich.*

Malaxis purpurascens. *Thouars orch. Afr. tt. 26. 27.*

Liparis purpurascens. *Lindl. in Bot. Reg. 882. A. Rich. orch. Maur. p. 53.*

Hab. in insulis *Borboniæ et Mauritiæ*, Thouars, A. Richard.

Planta humilis, 3-uncialis, caule squamulis aliquot vestito. Flores purpurascens. Fructus obovatus, costatus, corymbosus.

8. *LIPARIS atropurpurea.*

L. foliis 2-3 subrotundis acuminatis petiolatis plicatis basi obliquis cucullatis racemo erecto rarifloro subæqualibus, scapo tereti, labello oblongo obtuso recurvo crenulato, sepalis lateralibus oblongo-lanceolatis obliquis, petalis longissimis filiformibus.

Hab. in *Zeylona, Macrae*, (*hab. s. sp.*)

Species pulcherrima L. napalensi valdè affinis, floribus atropurpureis, foliis basi cucullatis, et labelli formâ, distinctissima.

9. *LIPARIS napalensis. Lindley.*

L. foliis binis cordatis acuminatis petiolatis plicatis racemo erecto rarifloro paulo longioribus, scapo angulato, labello maximo recto cucullato oblongo acuminato, sepalis petalisque linearibus patentibus.

Malaxis cordifolia. *Smith! in Rees.*

Liparis nepalensis. *Lindl. in Bot. Reg. 882. Spreng. no. 4.*

Acianthus petiolatus. *Don Prodr. nep. p. 28.*

Hab. supra rupibus saxisque Sheopore montis *Napaliæ*, florens Junio; *Wallich. (hab. s. sp. e Museo Anglo-Indico.)*

Flores virides.

10. *LIPARIS liliifolia. Richard.*

L. foliis binis oblongis acutis plicatis racemo multifloro multò brevioribus, scapo angulato, labello maximo obovato mucronato recurvo discolore, sepalis linearibus patentissimis.

Ophrys liliifolia. *Linn. sp. pl. 1341. Bot. Rep. 1. 65.*

Malaxis liliifolia. *Swartz act. Holm. 1800. p. 235. Willd. n. 8. Bot. Mag. t. 2004.*

Liparis liliifolia. *Rich. orch. Eur. Lindley in Bot. Reg. 882.*

Hab. in *America septentrionali (hab. s. sp. et v. v. cult.)*

Flores labello magno petalisque filiformibus purpurascens. Capsula obovata, costata.

11. *LIPARIS Löselii. Richard.*

L. foliis binis ovato-oblongis obtusis plicatis racemo paucifloro multo brevioribus, scapo angulato, labello ovato integerrimo concolore, sepalis petalisque linearibus inæqualibus.

Ophrys Löselii. *Linn. sp. pl. 1341. Eng. Bot. t. 47.*

Malaxis Löselii. *Swartz act. Holm. 1800. p. 235. Willd. n. 9.*

Liparis Löselii. *Rich. orch. Eur. Lindl. in B. Reg. 882. Synopsis Br. Fl. 1. 263.*

Ophrys paludosa. *Fl. dan. t. 877.*

Ophrys liliifolia. *Huds. Angl. 389.*

β? Malaxis correana. *Barton Prodr. Fl. Philad. p. 86. Nuttall 2. 196.*

Liparis correana. *Spreng. syst. 3. 740.*

Hab. in turfosis *Europæ borealis*; in *Canadâ*, Gouldie. (*hab. s. sp.*)

I have the Malaxis Correana from Canada, gathered by Mr. Gouldie, and I find no difference between it and our European Liparis Löselii.

12. *LIPARIS flavescens*. *Lindley*.

L. foliis binis oblongis petiolatis plicatis planis racemo 2-4-floro corymboso brevioribus, scapo flexuoso, bracteis ovatis, labello ovato integerrimo, sepalis lateralibus ovatis : supremo petalisque filiformibus.

Malaxis flavescens. *Thouars orch. Afr. t.* 25.

Liparis flavescens. *Lindley in Bot. Reg.* 882. *A. Rich. orch. Maur.* p. 51.

Hab. in *Mauritio* et *Borbonia* ; *Thouars*, *Neraud*.

Flores flavi.

13. *LIPARIS montana*.

L. “bulbis ovatis compressis vaginatis 1-2-phyllis, foliis petiolatis ovato-lanceolatis, pedunculo erecto sulcato, bracteis lineari-subulatis, limbo obtuso cum mucrone.” *Blume*.

Malaxis montana. *Blume p.* 388.

Hab. in umbrosis montis ignivomi Gede, insulæ *Javæ*, florens Junio ; *Blume*.

“Flores in summo pedunculi conferti, dilutè purpurascentes. Sepala margine reflexa, limbo ciliolato. Folia membranacea. Variat bulbis subnullis, floribus laxè racemosis, limbo nudo.” *Blume*.

14. *LIPARIS plantaginea*.

L. pseudo-bulbis ovatis vaginatis, foliis 1-2 oblongis acuminatis plicatis racemo brevioribus, scapo marginato, labello ovato subundulato obtuso basi bicalloso, bracteis acuminatis ovarii longitudine.

Cymbidium ? *plantagineum*. *Wallich in iconibus Musei Anglo-Indici n.* 633.

Hab. in *India Orientali* ; *Wallich*. (v. iconem.)

Flores virides. Sepala lineari-oblonga obtusa subæqualia et petala filiformia patentia.

15. *LIPARIS tradescantifolia*.

L. “bulbis compressiusculis vaginatis 1-phyllis, foliis ovatis discoloribus, bracteis minutis ovatis, labelli limbo ovato integerrimo.” *Blume*.

Malaxis tradescantifolia. *Blume p.* 389.

Hab. in umbrosis montanis Salak, *Javæ*, florens Octobri ; *Blume*.

“Sepala subæqualia, patentia ; labellum sepalis paulò latius, basi callosum. Antheræ loculis subdisjunctis. Folia membranacea.” *Blume*.

16. *LIPARIS Clypeolum*.

L. folio solitario horizontali suborbiculato basi cucullato apice reflexo acuto racemo erecto multò brevior, labello maximo orbiculato.

Epidendrum Clypeolum. *Forst. Prodr. n.* 323.

Cymbidium Clypeolum. *Willd. n.* 22.

Hab. in insula *Otaheite* ; *Forster*. (v. s. sp. et iconem *Forsterianam* in *Bibliotheca Banksiana*.)

Obs. Foliis magnis suborbiculatis solitariis spicâ paulò brevioribus insignis.

SECT. II. *Folia subcoriacea, non plicata. Rachis sæpius alata. Plures epiphytæ, scapis ancipitibus.*

CESTICHIS, *Thouars*.

17. *LIPARIS foliosa*. *Lindley*.

L. foliis pluribus oblongo-lanceolatis acutis racemis rarifloris subæqualibus.

scapo subancipiti, bracteis subulatis, labello oblongo obtuso recurvo, sepalis petalisque æqualibus reflexis, clinandrio marginato.

Liparis foliosa. Lindl. in *B. Reg.* t. 882. Lodd. *Bot. Cab.* 1097. *Hooker Bot. Mag.* t. 2709. *A. Rich. orch. Maur.* p. 52.

Liparis? reflexa. Lindl. *l. c.*

Cymbidium reflexum. R. Br. *Prodr.* 331.

Hab. in *Mauritio*, et *Nova Hollandia* ad Portum Jackson. (v. v. cult.)

Obs. In planta Mauritianâ inveni clinandrium integrum, in Australasica dentatum, alioquin discrimen nullum.

18. *LIPARIS longipes.* Lindl.

L. pseudo-bulbis longissimis teretibus diphyllis, foliis ensiformi-lanceolatis racemo stricto multifloro brevioribus, scapo ancipiti, labello ovato acuto ecalloso columnæ longitudine, sepalis ovatis, petalis linearibus. Lindl. in *Wall. Pl. As. Rar.* vol. 1. p. 31. t. 35.

Hab. supra saxa ad ripas fluminum montium *Zeylonæ*, florens Novembri: *Macrae*; in montibus *Bengaliæ orientalis*, Wallich. (hab. s. sp. et v. ic. pict.)

Pseudo-bulbi subcylindræi, teretes. Folia oblongo-lanceolata acuta. Racemus erectus foliis paulò longior, densus, multiflorus. Flores pallidè herbacei. Sepala lateralia ovata, supremum oblongum, patentia; petala linearia. Columna elongata, erecta, apice alata. Labellum erectum, ovatum, carnosum, glabrum, a columna omnino liberum, tuberculis obsoletis.

Obs. Planta Bengalensis nullo modo diversa videtur nisi floribus albis labello luteo; fortè icon mea Zeylanica minus accuratè depicta.

19. *LIPARIS elegans.* Lindl. in *Wall. cat.* no. 1943.

L. pseudo-bulbis elongatis diphyllis basi vaginis suberoso-carnosis vestitis, foliis spatulato-lanceolatis acuminatis racemo stricto multifloro æqualibus, scapo basi rachique teretibus, labello cuneato truncato crenulato basi bicalloso, sepalis oblongis obtusis patentibus.

Hab. in Pinang, *Indiæ Orientalis*; Wallich. (hab. s. sp. e Museo Anglo-Indico.)

Planta pedalis, verosimiliter epiphyta. Radices lanuginosæ. Pseudobulbi aliquando 4 uncias longi. Folia erecta in basi valdè attenuata. Flores aurantiaci (ex Wall). Petala filiformia. Capsulæ pendulæ, pyriformes, glabræ, costis 6 obsoletis.

L. crenulatæ valdè affinis; an diversa? Bracteæ non ovarii longitudine sed brevissimæ, nec labellum emarginatum sed truncatum cuneatum.

20. *LIPARIS crenulata.*

L. "foliis in bulbo oblongo compresso geminatis ternisve lineari-lanceolatis acuminatis, pedunculo longitudine foliorum, bracteis longitudine ferè ovarii lanceolatis, limbo labelli emarginato crenulato." Blume.

Malaxis crenulata. Blume p. 393.

Hab. in convallibus montis Gegar-bentang, *Javæ*, florens Maio; Blume.

"Flores aurantiaci; affinis *M. (Lipari) odoratæ*."

21. *LIPARIS latifolia.*

L. "folio in bulbis oblongis compressiusculis solitario lato lanceolato acuto, pedunculis folio longioribus, bracteis ovatis adpressis parvis, labelli limbo bilobo crenulato." Blume.

Malaxis latifolia. Blume p. 393.

Hab. in Provinciae Bantam regionibus montanis, ad montem Pantjan Provincia Buitenzorg, *Javæ*, florens Junio Augusto; Blume.

“Flores aurantiaci; *L. crenulatæ* maximè affinis.”

22. *LIPARIS angustifolia.*

L. “foliis in bulbo ovato-oblongo solitariis angusto-lanceolatis, pedunculo erecto apice paucifloro longitudine foliorum, bracteis lineari-subulatis, labelli limbo obtuso.” Blume.

Malaxis angustifolia. Blume. p. 393.

Hab. ad truncos arborum in montanis Salak et Gede, *Javæ*, florens Februario; Blume.

“Flores pallidè flavi.”

23. *LIPARIS viridiflora.*

L. pseudobulbis ovatis, foliis binis obovato-lanceolatis racemo multifloro nutante duplò brevioribus, scapo ancipite, rachi alatâ, labello ovato undulato obtuso ecalloso, bracteis subulatis floribus longioribus v. æqualibus.

Malaxis viridifolia. Blume p. 392.

Hab. supra arbores et saxa sylvarum *Zeylonæ*, florens Novembri, *Macrae*; in sylvis *Javæ*, Blume (*hab. s. sp. et v. ic. pict.*)

Pseudo-bulbi ovati, compressi. Folia obovato-lanceolata, acuta, racemo nutante duplò breviora. Bracteæ subulatæ floribus longiores. Flores virides. Sepala subæqualia ovata patentia. Petala linearia reflexa. Labellum ovatum undulatum obtusum.

24. *LIPARIS affinis.*

L. “foliis in bulbo ovato-oblongo solitariis lanceolato-linearibus infernè canaliculatis, pedunculo nutante foliorum longitudine, bracteis subulatis, labelli limbo rotundato.” Blume.

Malaxis affinis. Blume p. 392. tab. 54.

Hab. in sylvis propè Lebak Provinciae Bantam, *Javæ*, florens Junio; Blume.

25. *LIPARIS parviflora.*

L. “foliis in bulbo ovato oblongo compressiusculo geminatis lanceolatis basi carinatis, pedunculis (folio duplò longioribus) nutantibus teretibus, bracteis subulatis, labelli limbo angusto emarginato.” Blume.

Malaxis parviflora. Blume p. 392.

Hab. ad montem Salak, *Javæ*, florens Decembri; Blume.

“Flores lutei, labelli limbo coccineo.” Blume.

26. *LIPARIS pallida.*

L. “foliis in bulbo oblongo compressiusculo vaginato solitariis lanceolatis, bracteis lineari-lanceolatis remotis, labelli limbo rotundato-retuso crenulato.” Blume.

Malaxis pallida. Blume p. 391.

Hab. suprâ arbores excelsas fluvii Tjapus in montosis Salak, *Javæ*, florens Septembri; Blume.

“Flores olivacei.”

27. *LIPARIS minima*.

L. "folio in bulbis (seriatis ovatis compressiusculis) lineari-lanceolato, pedunculo folium æquante compresso, floribus laxè spicatis distichis, capsulis triquetris." *Blume*.

Malaxis minima. *Blume* p. 391.

Hab. in arboribus ad montem Salak, ut etiam in montosis Pantjar, *Javæ*, florens Maio; *Blume*.

Affinis *Lipari cæspitosæ* sec. *Blume*.

28. *LIPARIS cæspitosa*. *Lindley*.

L. foliis lanceolatis in pseudo-bulbis ovatis solitariis longitudine racemi rariflori, scapo tereti, labello lanceolato recurvo, sepalis petalisque acutis reflexis.

Malaxis cæspitosa. *Thouars* t. 90.

Liparis cæspitosa. *Lindl. in B. Reg.* 882. *A. Richard orch. Maur.* p. 53.

Hab. in *Mauritio* et *Borbonia*; *Thouars*.

Flores minuti virescentes.

29. *L. luteola*. *Lindl. in Wall. cat. no.* 1944.

L. pseudo-bulbis minimis vaginatis, foliis geminis lineari-lanceolatis racemo flexuoso paucifloro brevioribus, scapo tereti, labello obovato retuso in columna apice alata incumbente: callo unico baseos obsoleto, bracteis ovatis acuminatis decurrentibus, pedicellis capillaribus floribus multoties longioribus.

Hab. in montibus Pundua, *Indiæ Orientalis*, *Wallich* (hab. s. sp. e *Museo Anglo-Indico*.)

Planta parva gregaria inter muscos vegetans. Racemi 5-6-flori, foliis paulò evectiores; rachi tereti flexuosâ. Sepala lineari-oblonga, obtusa et petala filiformia, patentia. Labellum posticum, ungue columnæ parallelo, limbo recurvo, venis 5 simplicibus collateralibus in medio, unicâ utrinque distante venulas versus marginem hinc pectinatim emittente.

30. *LIPARIS compressa*.

L. "foliis in bulbo ovato compressiusculo solitariis lanceolato-linearibus basi carinatis, pedunculo compresso, bracteis bifariâ imbricatis (pectinatis), limbo orbiculato retuso cum mucrone." *Blume*.

Malaxis compressa. *Blume* p. 390. tab. 54.

Hab. in sylvis altioribus Provinciarum Buitenzorg, Bantam et Tjanjor, *Javæ*, florens Septembri; *Blume*.

"Flores aurantiaci." *Bl.*

31. *LIPARIS mucronata*.

L. "foliis in bulbis (remotis ovatis) compressiusculis solitariis lanceolato-linearibus acuminatis basi carinatis, bracteis in summo pedunculi bifariâ imbricatis carinatis, labelli limbo angusto semi-bifido cum mucrone intermedio." *Blume*.

Malaxis mucronata. *Blume* p. 391.

Hab. in sylvis montanis Provinciarum Bantam et Buitenzorg, *Javæ*, florens Junio; *Blume*.

"Flores flavo-virentes, parvi, nutantes. Affinis *Malaxi distichæ Thouarsii*." *Blume*.

32. *LIPARIS gregaria*.

L. foliis ensiformibus acutis in pseudo-bulbis ovatis solitarii, scapo ancipiti, rachi alata, bracteis distichis carinatis pectinatis, labello truncato, sepalis reflexis, petalis erectis.

Malaxis disticha. *Thouars t.* 89.

Liparis disticha. *Lindley in B. Reg.* 882. *A. Rich. orch. Maur.* p. 54.

Stelis micrantha. *Sieber. Herb. Maur.* n. 168.

Hab. supra rupes in sylvis montium *Zeylonæ*, florens Novembri; *Macrae*; *Mauritio*, *Sieber*; *Borbonia*, *Thouars.* (*habeo s. sp. et v. iconem pictam.*)

Rhizoma articulatum, annulatum, intricatum, pseudo-bulbos plurimos gregarios promens. Spicæ lanceolatae, bracteis ovatis acuminatis. Flores viridi-lutei; sepala lateraliter ovata acuta labello supposita; supremum reflexum; petala linearia erecta. Clinandrium marginatum cavum, anticè bilobum cum mucrone.

Obs. *Epidendrum biflorum*, *König Mss.* in *Zeylona* lectum, fortè hujus loci. Planta *Zeylanica* a *Mauritano Herbarii Sieberiani* n. 168 nullo modo differt; labellum tamen hujus secundum auctores celeberrimos suprà citatos tridentatum, dum in nostra certissimè truncatum dente nullo, nisi sic angulos truncaturæ dicas.

I formerly called this by the specific name given to it by *M. Du Petit Thouars* under the genus *Malaxis*, being at that time unacquainted with any others with the same remarkable distichous inflorescence. More being now known, I avail myself of the privilege which an author undoubtedly possesses of altering his own names if he thinks fit, although no one else can be suffered to do it for him.

* *LIPARIS spuria.*

33. *LIPARIS serræformis.* *Lindl. in Wall. Cat. no.* 1946.

Hab. supra arbores *Zeylonæ*, *Macrae*; *Attran Martabaniæ*, et *Tavoy Indiæ Orientalis*, *Wallich.* (*hab. s. sp. e Museo Anglo-Indico et Zeylond, et v. ic. pict. sine fl.*)

Planta epiphyta caulibus teretibus ramosis subancipitibus radices plurimos longissimos intricatos undique promens, pseudo-bulbo nullo. Folia disticha, coriacea, oblonga, v. oblongo-lanceolata, obtusa, decidua. Racemi oppositifolii, foliis longiores, pedunculo angulato non ancipiti, rachi alata, bracteis falcatis, ovatis, carinatis, distichis, pectinatis, in rachi decurrentibus. Florem unicum tantum vidi mutilum, cui quantum videre licuit, sepala ovata succulenta libera patentia venis 7 subsimplicibus, petala conformia paulò minora, labellum truncatum trilobum lobo medio apice calloso, callo altero luteo intra-apiculari, denique columna libera, fortè basi producta antherâ ovatâ biloculari, polliniis 4 angustis collateralibus liberis.

This singular plant when properly examined will possibly be found distinct from the genus in which it is now placed; all that I have been able to ascertain satisfactorily, from the inspection of a single mutilated flower, is that the pollen masses are as I have described them, and that the plant belongs to *Malaxideæ*. The peculiar winged rachis and carinate bractæ forming a kind of pectinated inflorescence is exactly that of *L. gregaria*, *disticha* and some others; but the plant differs from them in having no tendency to form bulb-like stems, in room of which it has the taper woody rooting stems and coriaceous distichous leaves of *Aerides* and its allies.

XX. DENDROCHILUM.

Dendrochilum. *Blume Bijdr.* 398. tabellen 52.

Sepala et petala æqualia, libera, patentia. Labellum integerrimum, sepalis subconforme, basi concavum v. carinatum, nunc cristatum. Columna brevis, semiteres, anticè processibus duobus cornua referentibus, apice dentata v. rostrata. Anthera infra apicem inserta, bilocularis, valvis nullis anticis. Pollinia 4, libera (♂ ♂) incumbentia.—Herbæ supra arbores vigentes, foliis coriaceis in pseudo-bulbis sæpius solitariis. Spicæ terminales aut laterales, filiformes, multifloræ. Flores juniores bracteis bifariam imbricatis occulti.

Character ex Blume.

SECT. I. “Bulbi remoti; spicæ laterales; sepala linearia; labellum parvum elasticè affixum; gynostemium apice attenuatum emarginatum.”
Blume.

1. *DENDROCHILUM aurantiacum.* *Blume.*

D. “bulbis oblongis, labello carinato edentulo.” *Blume l. c.*

Hab. in truncis arborum montium Gede, Salak, &c. insulæ *Javæ*, florens Februario Augusto; *Blume.*

“Flores aurantiaci suaveolentes.”

2. *DENDROCHILUM occultum.*

D. pseudo-bulbis subquadratis, foliis oblongis emarginatis, bracteis maximis quadrifariam imbricatis floribus occultantibus, labello lineari fimbriato.

Bulbophyllum occultum. *Thouars orch. Afr. tt.* 93. 94. *A. Rich. orch. Afr. p.* 64.

Hab. in insulis *Borboniæ* et *Mauritii*; *Thouars.*

Flores fuscii. Huc retuli ad mentem cel. *Blumii.*

3. *DENDROCHILUM pallideflavens.* *Blume.*

D. “bulbis ovalibus, labello carinato edentulo, gynostemii laciniis lateralibus scabris.” *Blume l. c. t.* 52.

Hab. in montanis *Pantjar* insulæ *Javæ*, florens Julio; *Blume.*

“Planta tenera, pedunculis tetragonis spicato-laxifloris. Flores pallidè flaventes.”

SECT. II. “Bulbi consociati; spicæ ex apice bulborum ortæ; sepala oblonga labello subæqualia; gynostemium apice truncatum erosum.”
Blume.

4. *DENDROCHILUM edentulum.* *Blume.*

D. “bulbis oblongis subulatisve, labello integerrimo internè 1-callosa, gynostemii laciniis lateralibus medio æqualibus.” *Blume l. c.*

Hab. in altis montis *Salak*, insulæ *Javæ*, florens Februario Julio; *Blume.*

“Flores flavo-virentes.”

5. *DENDROCHILUM cornutum.* *Blume.*

D. “bulbis fusinis, labello basi denticulato internè 2-callosa, gynostemii laciniis lateralibus elongatis.” *Blume l. c.*

Hab. in montosis Provinciarum Buitenzorg et Tjanjor, insulæ *Javæ*, florens Septembri Februario; *Blume*.

“Flores virentes.”

6. *DENDROCHILUM* simile. *Blume*.

D. “bulbis ovali-oblongis, labello internè denticulato internè bilineato, gynostemii laciniis lateralibus medio æqualibus.” *Blume. l. c. tab. 52.*

Hab. cum *D. cornuto* in insula *Javæ*, florens omni tempore; *Blume*.

“Flores pallidè virentes.”

7. *DENDROCHILUM* abbreviatum. *Blume*.

D. “bulbis ovali-oblongis, labello basi utrinque dente reflexo instructo internè bicalloso, laciniis gynostemii lateralibus abbreviatis.” *Blume l. c.*

Hab. in montanis Provinciarum occidentalium insulæ *Javæ*, florens toto anno; *Blume*.

“Flores virescentes.”

XXI. OTOCHILUS.

Sepala et petala æqualia, libera, patentia. Labellum trilobum, lobis lateralibus auriformibus basin columnæ amplexantibus, intermedio patente elongato sepalis conformi, cristis nullis. Columna elongata, clavata, semiteres. Anthera terminalis, bilocularis, septo medio bipartibili, et hinc bivalvis, valvis anticis et posticis medio septiferis. Pollinia 4, incumbentia (♂ ♂), ad basin materie granulosa cohærentia.—Herbæ supra arbores repentes, rhizomate destitutæ, sed pseudo-bulbis semper e latere apicis suæ soboliferis. Racemi multiflori e latere pseudo-bulborum, basi vaginati. Stigma labio superiore ovato producto.

Genus *Cœlogyni* affine, columnâ immarginatâ, antherâ terminali, dehiscentiâ antheræ, et structurâ labelli diversum.

1. *OTOCHILUS* alba. *Lindl. in Wall. Cat. no. 1967.*

O. pseudo-bulbis ovalibus imbricatis, foliis lanceolatis subplicatis, racemis è vaginis foliaceis verrucosis erumpentibus, bracteis oblongis, sepalis petalisque acutis.

Broughtonia pendula. Wallich in icon. Bibl. Anglo-Indicæ n. 643.

Hab. supra arbores *Napaliæ*, indeque in hortum Botanicum Calcuttæ allata, Aprili floret, *Wallich. (hab. s. sp. e Museo Anglo-Indico et v. ic. pict.)*

Rhizoma nullum sed pseudo-bulbi e lateribus suis hinc proliferi. Flores albi inodori. Labellum basi flavum. Alabastra ovata. Columna virescens.

2. *OTOCHILUS* fusca. *Lindl. l. c. no. 1969.*

O. pseudo-bulbis elongatis fusiformibus, foliis lineari-lanceolatis, bracteis linearibus, sepalis petalisque obtusis.

Broughtonia? amœna. Wall. in ic. Bibl. Anglo-Indicæ n. 642.

Hab. supra arbores *Napaliæ*, inde in Hortum Botanicum Calcuttæ introducta, ubi floret Januario, *Wallich.*

Vaginæ racemi breves. Racemus densus, multiflorus, nutans. Rachis ovaria bracteæ et columna fuscæ. Labelli aures dilutè roseæ. Alabastra obovata. Pseudo-bulbi digiti crassi, 6-8-pollicares. Flores odoratissimi ex *Wall.*

3. *Otochilus porrecta*. Lindl. l. c. no. 1968.

O. pseudo-bulbis elongatis fusiformibus, foliis oblongo-lanceolatis plicatis, bracteis linearibus, sepalis petalisque acutis.

Hab. in Pundua *Indiæ Orientalis*, Wallich. (*hab. s. sp. e Museo Anglo-Indico.*)

Præcedenti simillima, at characteribus datis diversa. Aures labelli obscure denticulatæ. Pollinia non vidi.

XXII. CÆLIA.

Sepala distincta, æqualia, patentia. Petala subæqualia paulò minora. Labellum integerrimum, unguiculatum, cum basi columnæ continuum, (nec articulatum). Columna nana cum ovario continua, basi leviter producta. Antheræ loculi 2, per connectivum tenue tantum cohærentes, ovati, inappendiculati. Pollinia 4, per paria cohærentia, oblonga, æqualia: pare utroque extùs convexo intùs cavo. Ovarium 9-alatum.—Herba epiphyta acaulis, foliis plicatis et scapo radicali e squamis semicoriaceis erumpentibus.

I learn the very curious structure of this plant from a beautiful sketch of Mr. Bauer's. Its peculiarity consists in its anther having its lobes connected by only a narrow slight connectivum, so that it is two-lobed, and in the pollen masses being concave and convex so that each pair forms a sort of hollow body narrower at the back than at the front, at which end it is open. The placentary angles of the ovary are larger than the rest and simple, while the intermediate ones are smaller and double.

1. CÆLIA Bauerana.

Epidendrum tripterum. Smith ic. pict. 14. t. 14.

Cymbidium tripterum. Swartz n. act. Ups. 6. p. 70. Willd. n. 2. Hort. Kew. ed. 2. 5. 214.

Hab. in *Jamaica* (*habeo s. cult.*)

XXIII. PHOLIDOTA.

Pholidota. Lindley in Hooker Exot. fl. t. 138. (Januario 1825).—*Ptilocnema*. Don Prodr. nep. 33. (Febr. 1825).—*Crinonia*. Blume Bijdr. p. 338. t. 41.

Flores subglobosi. Sepala æqualia, distincta. Petala minora. Labellum cucullatum ventricosum, trilobum v. indivisum, cum columna parallelum. Columna cum ovario continua, semiteres v. alata: clinandrio cucullato. Anthera bilabiata! 2-v. 4-valvis. Pollinia 4, globosa, distincta.—Herbæ epiphytæ rhizomate v. carnosio articulato v. pseudo-bulbifero. Folia plicata. Spicæ terminales sæpius imbricatæ et nutantes.

In this genus there are some species in which the rhizoma has spurious bulbs, and others in which, in lieu of these bodies, the joints of the rhizoma themselves become fleshy. The anther is not formed upon the usual plan of Orchideæ. Instead of the valves opening by two slits along the face of each lobe of the anther, these lobes are combined and the whole face of the anther separates from the back, on which account I have called it bilabiate. The same thing appears to happen in some of Blume's *Cheilonantheras*.

1. PHOLIDOTA imbricata. Lindley.

P. pseudo-bulbis ovato-oblongis obtusis subangulatis, foliis solitariis ob-

longo-lanceolatis plicatis acutis, spicis pendulis foliorum longitudine, bracteis membranaceis concavis imbricatis, sepalis lateralibus ovatis carinatis, labello subgloboso cucullato: lobis lateralibus parvis erectis; intermedio bilobo cordato.

Pholidota imbricata. Lindl. in *Hooker Flora Exotica* t. 138. *Bot. Reg.* t. 1213. Wall. *Cat. no.* 1991.

Ptilocnema bracteatum. Don *Prodr.* 33.

Hab. in India Orientali, frequens, Wallich; in Zeylona, Macrae. (v. v. cult. et habeo s. sp.)

2. PHOLIDOTA undulata. Wallich.

P. pseudo-bulbis ovato-fusiformibus inæqualibus, foliis binis lanceolatis erectis, spicis elongatis pendulis, bracteis ovato-linearibus, sepalis ovatis subcarinatis concavis, labello cucullato ventricosso obsoletè trilobo integerrimo.

P. undulata. Wallich in *Bot. Reg. fol.* 1213 in textu.

Hab. in India Orientali, Wallich. (v. ic. pict. in *Bibl. Anglo-Indica.*)

Flores fusci. Labellum tantum pallidè lateritium.

This species is nearly allied to *P. imbricata*, from which its brown flowers, small bractæ and differently shaped lip and leaves abundantly distinguish it.

3. PHOLIDOTA rubra.

P. pseudo-bulbis ovatis corrugatis, foliis binis lanceolatis, spicis laxis erectis foliis brevioribus: fructiferis longioribus nutantibus, bracteis lanceolatis, sepalis concavis ovatis acutis, labello trilobo: lobo medio ovato acuto.

Hab. in India Orientali; Wallich. (v. ic. pict. in *Bibl. Anglo-Indica.*)

Sepala et petala lateritia. Labellum et columna luteæ.

I for some time took this for Blume's *Crinonia carnea*; but his description is so brief and in the few particulars he mentions it differs so much as to justify me in regarding it as a distinct species.

4. PHOLIDOTA carnea.

P. "bulbis subremotis ovato-oblongis 1-3-phyllis, foliis lineari-lanceolatis, labelli limbo rotundato intus bicalloso." Blume.

Crinonia carnea. Blume p. 339. t. 41.

Hab. in sylvis umbrosis montium Salak et Gede, Javæ, florens toto anno; Blume.

Variat bulbis approximatis ovalibus, prope Tjitjalobak, ad montem Salak, Javæ; Blume.

5. PHOLIDOTA globosa.

P. "bulbis approximatis globosis 2-3-phyllis, foliis lineari-lanceolatis, labelli limbo obtuso." Blume.

Crinonia globosa. Blume p. 339.

Hab. ad cataractas fluvii Tjapus in montes Salak, Javæ, florens Octobri; Blume.

6. PHOLIDOTA recurva.

P. rhizomate carnosso articulato ascendente, foliis solitariis oblongo-lanceolatis subplicatis, spicis secundis recurvis foliis longioribus, bracteis

cuneatis membranaceis imbricatis, sepalis lateralibus ovatis dorso acutis, labello ventricoso (undulato?) indiviso emarginato.

Hab. in *Napalia*, Wallich. (hab. s. sp. comm. cel. Lambert.)

Articuli rhizomatis $1\frac{1}{2}$ unciam longi. Folia circiter 3-uncialia. Columna teres anticè tumida. Dorsum clinandrii erectum, rostellum ovatum porrectum.

I know this very remarkable species by specimens given me several years since by Mr. Lambert. It came to England with some of Dr. Wallich's earliest Nipal collections. Its imbricated unilateral recurved spikes characterize it well, and distinguish it from *P. articulata* which besides has the joints of the rhizoma twice as long, and the bractæ of a different figure.

7. *PHOLIDOTA articulata*. Lindl. in Wall. Cat. no. 1992.

P. rhizomate carnosio articulato ascendente, foliis binis pluribusve ovalibus plicatis apice subintegris, spicis laxis cernuis foliorum longitudine, bracteis oblongis concavis, sepalis ovatis, labello cucullato integro apice rotundato plano.

Hab. in *Pundua, Indiæ Orientalis*, Wallich. (habeo s. sp. e Museo Anglo-Indico et v. ic. pict.)

Articuli rhizomatis 3-4 uncias longi. Rachis valdè flexuosa. Flores albi, basi apicis labelli luteâ.

XXIV. DILOCHIA.

Sepala conniventia, libera, petalis subæqualia, colorata. Labellum cucullatum, trilobum, basi subsaccatum, trilamellatum. Columna cum labello non articulata, clavata, alata, apice cucullata dentata. Anthera 4-locularis, ovata, cristata. Pollinia 4.—Herba caulescens, foliis coriaceis acutis distichis subcostatis. Racemus terminalis e squamis coriaceis erumpens, bracteis coriaceis, persistentibus, divaricatis, coriaceis, distantibus. Flores speciosi, sepalis crassioribus quam petala, ovario non torto.

Obs. Octomeriæ structurâ similis, habitu diversissima.

1. *DILOCHIA Wallichii*. Lindl. in Wall. Cat. no. 1952.

Hab. in *Singapore*, Wallich. (hab. s. sp. e Museo Anglo-Indico.)

XXV. CŒLOGYNE.

Cœlogyne. Lindl. Coll. Bot. 33. in textu.—*Pleione*. Don. Prodr. nep. 37.—*Chelonantheræ*, Sect. 2 et 3. Blume Bijdr. 382.

Sepala conniventia v. patentia, libera, æqualia, petaloidea. Petala nunc sepalis conformia, nunc linearia. Labellum cucullatum, sæpius trilobum, lineis disci elevatis v. cristatis, nunc integerrimum e cristatum (in *Paniscâ*). Columna erecta libera margine alata, apice dilatata, nunc cucullata, stigmate bilabiato. Anthera bilocularis, septo medio non partibili; infra apicem columnæ inserta. Pollinia 4, libera, (♂ ♂) incumbentia; nunc basi materie granulosa cohærentia.—Herbæ supra arbores et saxa vigentes, foliorum basibus in pseudo-bulbos dilatatis, rhizomate nunc crasso squamoso, nunc obsoleto. Folia coriacea sæpius venis distinctis

æqualibus, nunc quibusdam crassioribus costata v. plicata. Racemi terminales v. radicales e squamis (bracteis sterilibus) corneis erumpentes. Flores speciosi sæpe odorati.

Obs. This genus is nearly related to *Cymbidium* among *Vandææ* and to *Cattleya* among *Epidendreæ*, from both which its peculiar habit is alone sufficient to distinguish it. From *Dendrochilum* it is only known by the absence of horn-like processes from its column; for the lip of some of the *Gomphostylis* section is entire, and *C. (Panisca) parviflora* is a *Dendrochilum* in every thing except the want of these processes. There is a strong tendency to produce a gland in some species such as *C. præcox*, *uniflora*, and *fimbriata*; but this is a mere granular mass such as the filum of *Epidendreæ* and will not be confounded with the cartilaginous gland of *Vandææ*.

1. *CÆLOGYNE flaccida*. Lindl. in Wall. Cat. no. 1961.

C. pseudo-bulbis oblongis angulatis squamis coriaceis acuminatis ustulatis vestitis, foliis lanceolatis v. oblongo-lanceolatis longè petiolatis, racemo flexuoso nutante, bracteis deciduis, petalis lineari-lanceolatis, labello ovato trilobo: lineis tribus elevatis flexuosis: lobo medio ovato basi auriculato, columnâ integerrimâ.

Hab. ad Noakote, *Napaliæ*, supra arbores crescens, Wallich. (hab. s. sp. e Museo Anglo-Indico, et v. ic. pict.)

Flores mediocres, albi. Labellum intus flavum, immaculatum.

Vaginis ustulatis conspicua.

2. *CÆLOGYNE cristata*. Lindley.

C. pseudo-bulbis oblongis demùm angulatis rhizomati crasso squamoso insidentibus, foliis lineari-lanceolatis, racemo radicali nutante flexuoso basi squamis corneis vaginato, bracteis oblongis divaricatis persistentibus, petalis oblongo-lanceolatis, labelli trilobi cristâ duplici interruptâ: inferiore pectinatâ, lobo medio rotundato apiculato, columnâ denticulatâ.

? *Cymbidium strictum*. Don Prodr.

Cælogyne cristata. Lindl. Coll. Bot. p. 33. Wall. Cat. no. 1958.

Hab. in montibus *Napalensibus* supra saxa et arbores, Wallich. (hab. s. sp. e Museo Anglo-Indico et v. ic. pict.)

Flores maximi generis, albi, odorati, divaricati. Sepala et petala conformia, lanceolata, leviter undulata. Labellum leviter cum basi columnæ connatum, cristis duabus parallelis luteis interruptis anticè subintegris, posticè pectinatis, et ex Wallichio, in seriebus 5 pilorum longorum simplicium s. bifidorum basi desinentibus.

3. *CÆLOGYNE speciosa*.

C. "bulbis oblongis tetragonis monophyllis, foliis oblongo-lanceolatis nervosis, scapo nutante retroflexo paucifloro, labello intus cristis 2 muricatis." Blume.

Chelonanthera speciosa. Blume p. 384. tab. 51.

Angræcum nervosum. Rumph. Herb. Amb. tom. 6. t. 48.

Hab. in sylvis montis Salak, *Javæ*, supra arbores, florens Octobri-Junio, Blume.

"Flores majusculi; sepala exteriora oblonga, acuta, carinata, margine reflexa, albo lutescentia. Labellum infrà albo griseum, intus fulvum, lobo medio emarginato undulato."

4. *CÆLOGYNE* incrassata.

C. "bulbis oblongis subtetragonis, foliis lanceolatis nervosis, pedunculo nutante multifloro, labello intus bicristato nudo, limbi lobo medio ovato incrassato." *Blume*.

Chelonanthera incrassata. Blume p. 384.

Hab. in sylvis montis Pantjar, *Javæ*, florens Junio-Julio. *Blume*.

"Flores sordidè albi, diaphani; labelli limbo fusco undulato."

5. *CÆLOGYNE* elata. *Lindl. in Wall. Cat. no. 1959.*

C. pseudo-bulbis oblongis angulatis in rhizomate crasso squamoso insidentibus, foliis oblongis in basi attenuatis longè petiolatis, scapo terminali stricto foliis brevior subracemoso squamis distichis vaginato, bracteis deciduis, petalis lineari-lanceolatis, labelli trilobi medio bicristati lobo medio ovato crenulato, columnâ integrâ.

Hab. in sylvis *Napaliæ* et *Syllet*, *Wallich*, Februario Martio vigens. (*hab. s. sp. e Museo Anglo-Indico, et v. ic. pict.*)

Species sesquipedalis et ultrâ. Flores albi, inodori. Labellum lobis lateralibus rotundatis, intermedio basi ocellis duobus flavis. Capsula lucida trigona clavata sesquipollicaris. *Wallich Mss.*

6. *CÆLOGYNE* prolifera. *Lindl. l. c. no. 1956.*

C. pseudo-bulbis ovatis angulatis rhizomati crasso squamoso insidentibus, foliis lanceolatis longè petiolatis, scapo terminali gracili erecto foliis duplò longiore prolifero sub quoque racemo squamis distichis vaginato, bracteis deciduis, petalis linearibus, labelli trilobi lobo medio retuso integerrimo undulato, columnâ subdenticulatâ.

Hab. ad Noakote et Toka, *Napaliæ*, supra arbores et rupes, florens Maio, *Wallich*. (*hab. s. sp. e Museo Anglo-Indico floribus delapsis.*)

Character floris ex *Wallichii Mss.* Flores ex viridi flavi. Sepala ovata leviter patula, semi-unguicularia, acutiuscula.

7. *CÆLOGYNE* nitida. *Lindley l. c. no. 1954.*

C. pseudo-bulbis ovatis cæspitosis subcostatis squamis nitidis vestitis, foliis lanceolatis acuminatis racemis nutantibus æqualibus, bracteis deciduis, sepalis petalisque oblongis obtusis, labelli lobo intermedio subrotundo cordato-ovato, disco lineis duabus elevatis, columna integra.

Cymbidium nitidum. Roxb. Hort. Beng.

Cælogyne? nitida. Lindl. coll. p. 33.

Hab. in *Napalia*, *Wallich*. (*hab. s. sp. e Museo Anglo-Indico et v. ic. pict.*)

Flores candidi, odorati. Labellum maculis duabus oblongis venisque croceis in cucullo, et ocellis duobus aurantiacis ad basin lobi intermedii, plicâ parvâ ad basin labelli inter duas lineas elevatas.

8. *CÆLOGYNE* ocellata. *Lindl. l. c. no. 1953.*

C. pseudo-bulbis ovatis cæspitosis subangulatis squamis nitidis vestitis, foliis lanceolatis acuminatis in petiolo angustatis racemis strictis æqualibus, bracteis deciduis, sepalis petalisque oblongo-lanceolatis, labelli lobo intermedio ovato ad basin utrinque lamellâ abbreviatâ interruptâ, disco lineis tribus lamellatis, columnâ obsoletè trilobâ.

Cælogyne punctulata. Lindl. coll. p. 33.

Hab. in Sylhet et Sermore Indiæ Orientalis, Wallich. (hab. s. sp. e Museo Anglo-Indico.)

Priori affinis habitu et colore florum, differt sepalis petalis labelloque longioribus, racemo erecto, et lamellis labelli.

Obs. *C. punctulata mihi olim*, ex exemplare solitario descripta, hujus loci est. Nomen mutavi quia dubius hæreo an flores reverâ sint punctati.

9. CÆLOGYNE Gardneriana. Lindl. in Wall. Pl. As. Rar. vol. 1. p. 33. t. 38.

C. pseudo-bulbis ampullaceis teretibus, foliis lanceolatis 5-costatis acuminatis longè petiolatis, racemis nutantibus densifloris terminalibus radicalibusque foliis multò brevioribus, bracteis deciduis, sepalis petalisque oblongis, labelli denticulati basi saccati lobo medio bilobo lateralibus minore.

Hab. in India Orientali, Wallich. (v. ic. pict. l. c.)

Maxima generis. Pseudo-bulbi 6 uncias longi; folia sesquipedalia; racemi spithamæi. Flores candidi immaculati. Bracteæ oblongæ.

10. CÆLOGYNE fuscescens. Lindl. in Wall. Cat. no. 1962.

C. pseudo-bulbis oblongis teretibus, foliis oblongis plicatis coriaceis utrinque acutis, racemo nutante multifloro, bracteis deciduis, petalis linearibus, labello trilobo trilineato: lobo medio amplo ovato acuto undulato, columnâ integrâ.

Hab. in Napalia supra arbores, Wallich. (hab. s. sp. e Museo Anglo-Indico, et v. ic. pict.)

Flores ampli e viridi fuscescentes. Sepalum supremum lateralibus majus. Labellum disco loborum lateralium et maculis duabus rotundis ad basin lobi medii cinnamomeis.

11. CÆLOGYNE trinervis. Lindl. l. c. no. 1955.

C. pseudo-bulbis ovatis in rhizomate crasso squamoso insidentibus, foliis lanceolatis plicatis in petiolum longum acuminatis, racemo brevi stricto, bracteis deciduis, petalis linearibus patentibus, labelli trilobi lobis rotundatis: intermedio undulato lineis tribus flexuosis elevatis, columnâ integrâ.

Hab. in Tavoy oræ Tenasserim, Indiæ Orientalis; Wallich. (hab. s. sp. e Museo Anglo-Indico.)

Species elegantissima *C. fuscescenti* affinis.

12. CÆLOGYNE odoratissima. Lindl. l. c. no. 1960.

C. pseudo-bulbis cæspitosis ovatis, foliis lanceolatis petiolatis racemi bistriflori longitudine, bracteis cymbiformibus divaricatis, petalis lineari-lanceolatis, labello trilobo tricristato: lobo medio undulato rotundato, columnâ integerrimâ.

Hab. in monte altissimo Zeylonæ, Nuera Ellia dicto, supra arbores, Macrae. (hab. s. sp. et v. ic. pict.)

Planta parva, 4 circiter uncias alta, rhizomate vix ullo. Pseudo-bulborum vaginæ virides concolores. Flores candidi, fragrantissimi, unicolores, maculis nullis. Petala magis reflexa quam sepala et multò angustiora.

13. CÆLOGYNE fimbriata. Lindl.

C. pseudo-bulbis oblongis in rhizomate squamoso insidentibus, foliis lan-
May, 1830.

ceolatis pedunculo terminali vaginato bifloro duplò longioribus, petalis linearibus reflexis, labelli trilobi lobo medio undulato fimbriato, columnâ apice dentatâ.

Cœlogyne fimbriata. Lindl. in *B. Reg.* t. 868. Wall. Cat. no. 1957.

Broughtonia linearis. Wall. in *Bibl. Angl. Ind. ic. pict.* n. 649.

Hab. in *China*; etiam in *Napalia*, Wallich. (hab. s. sp. e *Museo Anglo-Indico*, v. v. cult. et iconem pict.)

Herba rhizomate annulato latè repente. Flores luteo-virides. Labellum carneum, basi saccatum, limbo fusco-aurantiaco medio bicristato, cristâ utrinque minore abruptâ. Pollinia basi materie granulosa cohærentia. Bracteæ in indica magnæ persistentes, in hortensi deciduæ.

14. *CÆLOGYNE uniflora.* Lindl. l. c. no. 1966.

C. pseudo-bulbis ampullaceis aggregatis rhizomate insidentibus, foliis lineari-lanceolatis acuminatis, scapis radicalibus unifloris pseudo-bulbis subæqualibus, petalis lanceolatis, labello oblongo: lobis lateralibus brevibus falcatis.

Hab. in *India Orientali*, Wallich. (v. iconem pict. in *Museo Anglo-Indico*.)

Planta spithamæa. Flores dilutè carnei, sepalis lateralibus carinatis, petalis lanceolatis conformibus. Labellum sepalis ferè duplò latius, medio maculis tribus aurantiacis parùm elevatis notatum, de quibus lineæ 4, duæ ex media inferiore, parumper elevatae decurrunt. Wallich Mss.

In this species it appears from Dr. Wallich's figure that there is a production at the base of the pollen masses, indicating I presume from its colour a formation of granular matter as in some other species that I have examined. It is nevertheless possible that the artist may have intended to represent a cartilaginous gland, in which case the species would be rather referable to *Cymbidium*. I have seen no specimen.

15. *CÆLOGYNE longifolia.*

C. "bulbis oblongis tetragonis diphyllis, foliis longo-lanceolatis, racemo elongato flexuoso multifloro, labello intùs bicristato: limbo rotundato emarginato patulo." Blume.

Chelonanthera longifolia. Blume p. 385. tab. 51.

Hab. circa originem fluminis Tjiburrum in monte Gede, *Javæ*, supra arbores; ad montem Salak in sylvis altioribus propè Passir Java, florens Aprili-Junio, Blume.

"Flores majusculi, helvoli. Sepala externa oblonga, carinata. Labellum basi concavum."

16. *CÆLOGYNE miniata.*

C. "bulbis oblongis subtetragonis diphyllis, foliis lineari-lanceolatis, racemo erecto paucifloro, labello intùs lineis 2 elevatis: limbo erecto acutiusculo." Blume.

Chelonanthera miniata. Blume p. 385.

Hab. propè cataractas fluvii Tjikundul, ad montem Gede, *Javæ*, et in altis montis Salak supra arbores, florens Junio, etc. Blume.

"Flores miniati; sepala acuta, exteriora leviter carinata."

§ GOMPHOSTYLIS. *Wall. Mss. Pleione. Don Prodr. nep.*

Folia serotina. Pseudo-bulbi vaginis reticulatis tecti, depressi, cute tenerâ nec corned lucidâ. Flores solitarii radicales pedunculo vaginato. Labellum fimbriatum basi saccatum. Columna apice petaloidea cucullata. Pollinia materie granulosa cohærentia.

I am unable to distinguish any thing like an essential difference between the plants of this section and *Cœlogyne* proper; their habit is remarkable but there is a close approach to it in *C. uniflora*. The granular matter by which their pollen masses cohere is of exactly the same nature as that of *C. fimbriata*.

17. *CÆLOGYNE humilis. Lindley.*

C. foliis, labello integro emarginato fimbriato, disco cristis plurimis fimbriatis, columnâ apice subintegrâ.

Epidendrum humile. Smith Exot. Bot. t. 98.

Cymbidium humile. Smith in Rees.

Pleione humilis. Don. Prodr. 37.

Cœlogyne humilis. Lindl. coll. p. 37. Wall. Cat. no. 1963.

Hab. in Napalia, Wallich. (hab. s. sp. e Museo Anglo-Indico, et v. ic. pict.)

Flores candidi. Labellum sanguineo maculatum. Vaginæ virides immaculatæ. Columna sanguineo punctata.

18. *CÆLOGYNE Wallichiana.*

C. foliis, labelli lobo medio ovato denticulato apice bilobo integro cum apiculo: lateralibus obsoletis, disco cristis quinque incompletis denticulatis, basi breviter calcarato, columnâ apice dentatâ, stigmatis labio inferiore tricuspidato.

Hab. in Pundua, Wallich. (v. ic. pict. in Museo Anglo-Indico.)

Flores purpurei, prioris.

19. *CÆLOGYNE maculata.*

C. foliis lanceolatis plicatis, labelli lobis lateralibus abbreviatis integris: intermedio ovato retuso undulato, disco lineis quinque rectis denticulatis, columnâ integrâ, bracteâ ventricosâ.

Gomphostylis candida. Wallich in ic. pict. in Museo Anglo-Indico n. 651.

Hab. in Pundua, Indiæ Orientalis, Wallich. (v. ic. pict. in l. c.)

Flores candidi. Labellum medio sanguineo-lineatum, ad latera lobi intermedii guttatum. Pseudo-bulbi fusci.

20. *CÆLOGYNE præcox. Lindley.*

C. foliis oblongis ovatisque plicatis, labelli lobo medio oblongo emarginato fimbriato: disco cristis quinque serratis, basi breviter calcarato, columnâ apice dentatâ.

Epidendrum præcox. Smith Exot. Fl. t. 97.

Cymbidium præcox. Smith in Rees.

Pleione præcox. Don Prodr. 37.

Cœlogyne præcox. Lindl. Coll. Bot. p. 37. Wall. Cat. no. 1965.

Hab. in Napalia, Wallich. (hab. s. sp. e Museo Anglo-Indico, et v. ic. pict.)

Flores purpurei, labelli limbo albo. Pseudo-bulbi maculati. Vaginæ inferiores pedunculorum maculatæ.

§ PANISEA.

Sepala petala et labellum æqualia conniventia conformia: hoc integerrimo ecristato. Columna alato-marginata ecornis. Inflorescentia radicalis. Cœlogyni et Dendrochilo pariter affinis, huic labello illo columnâ, ab utroque diversa. An genus proprium?

21. CÆLOGYNE parviflora.

C. pseudo-bulbis cæspitosis ovatis elongatis, foliis lineari-lanceolatis obtusis racemi stricti imbricati longitudine, bracteis ovatis acutis pedicellis brevioribus, floribus imbricatis, petalis sepalisque lineari-oblongis æqualibus conniventibus, labello petalis conformi basi sigmoideo flexuoso integerrimo, columnâ cuneatâ integrâ.

? *Dendrobium demissum. Don Prodr.*

Hab. in Napalia, Wallich. (hab. s. sp. e Museo Anglo-Indico.)

Petala basi cordata. Scapus radicalis, capillaris, 4-5-uncias longus.

This plant occupies an intermediate position between Cœlogyne and Dendrochilum, agreeing with the former in its winged column, differing in its entire lip, and connivent flowers, and agreeing with the latter in its entire lip with a sigmoidal flexure at the base, but differing in the structure of the column and especially in the want of the lateral horn-like processes.

XXVI. DICRYPTA.

Sepala libera, erecta, æqualia. Petala conformia paulò minora. Labellum oblongum, obsoletè trilobum, carnosum, cum columna articulatum, lineâ elevatâ interruptâ disci. Columna cum ovario continua, semiteres, ad basin anticè clavata. Clinandrium convexum. Anthera obsoletè bilocularis. Pollinia 4, complanata, incumbentia (♂ ♂): posticis minoribus, materie granulosa leviter cohærentia.

Habitus et patria ignoti.

1. DICRYPTA Baueri.

Habitat (v. ic. Bauerianam.)

Pedicellus medio articulatus, bractea oblongâ glabrâ vaginatus. Ovarium pedicello paulò longius, cylindraceum, angulis placentariis costalibusque subæqualibus. Flos luteus sepalis extus punctatis. Clinandrium convexum emarginatum, cavitate levi pro anthera recipienda. Anthera papillosa. Capsulæ valvulæ subæquales.

I only know this curious plant from a sketch of the flowers made by Mr. Bauer from a plant that blossomed at Kew, September 3, 1806. It is not noticed in the 5th volume of the Hortus Kewensis published in 1813.

XXVII. MESOCLASTES.

Sepala conniventia v. (anthesi peractâ?) reflexa, æqualia, libera: lateralibus carinatis. Petala sepalis subæqualia. Labellum integrum, concavum, cum columnâ parallelum, subcochleatum, medio interruptum, dimidiâ superiore ovatâ subcordatâ; venis simplicibus a basi labelli radiantibus. Columna cum ovario continua, non cum labello articulata,

nana, aptera. Anthera subrotunda, inappendiculata, bilocularis. Pollinia 2, libera, medio foveata. Ovarium triquetrum.—Herbæ caulescentes, foliis teretibus, floribus solitariis v. paucis.

1. MESOCLASTES uniflora. *Lindl. in Wall. Cat. no. 1993.*

M. floribus solitariis, labelli dimidiâ superiore medio callosâ,

Hab. in Gossain Than, Wallich. (*hab. s. sp. ex Herb. Anglo-Indico.*)

Labellum dimidiæ inferioris venis incrassatis. Sepala conniventia. Folia paulò majora quam in sequente. Capsula lineari-oblonga sesquiuncialis.

2. MESOCLASTES brachystachys. *Lindl. l. c. no. 1994.*

M. spicis brevibus densis paucifloris, labelli dimidiâ superiore ecallosâ.

Hab. in Sylhet, Indiæ Orientalis, Wallich. (*hab. s. sp. ex Herb. Angl. Ind.*)

Sepala demum reflexa. Labellum dimidiæ inferioris venis versus basin evanescentibus. Caules duri. Folia filiformia subtortuosa. Hujus tantum vidi pollinia.

Section II. DENDROBIEÆ.

ORCHIDEÆ; Tribus Malaxideæ,** Dendrobieæ. *Lindley in Bot. Reg. fol. 1291.*

Columna in ovario recumbens, ad basin longiùs producta.

ARTIFICIAL ANALYSIS OF THE GENERA.

Pollinia 2; v. 1 bipartibile.

Labellum bilobum (cum columna continuum)

Petala unguiculata. Sepala lateralia omninò connata

29. LYRÆA.

Petala sessilia. Sepala lateralia basi tantum connata

28. COCHLIA.

Labellum integrum, v. trilobum (cum columna articulatum)

Petala multifida: laciniis clavatis appendiciformibus

36. EPICRANTHES.

Petala indivisa

Labellum calcaratum

35. MICROCÆLIA.

Labellum ecalcaratum

Folia plana

39. DIGLYPHOSA.

Folia equitantia

44. OXYSTOPHYLLUM.

Pollinia 4. (nunc in unum connata.)

Petala nulla

37. MONOMERIA.

Petala duo.

Sepalum posticum majus, lateralibus altè connatum

30. MEGACLINIUM.

Sepalum posticum liberum

Labellum cum columna connatum

Labelli limbus longè unguiculatus

38. STENOGLOSSUM.

Labelli limbus sessilis dilatatus

46. METACHILUM.

Labellum liberum, v. tantum cum basi producta columnæ connatum

Labellum unguiculatum, planum; (sæpiùs integerrimum et carnosum)

Sepala lateralia acuminatissima supremo nano

32. CIRRHOPETALUM.

Sepala lateralia supremo subæqualia

Petala et labellum minima conformia

33. TRIAS.

Labellum petalis majus difforme

Sepala reflexa

34. MACROSTOMIUM.

Sepala erecta

31. BOLBOPHYLLUM.

Labellum sessile cucullatum ; (sæpiùs trilobum et membranaceum)

Folia plana

Labellum posticum. Flores carnosi. Alabastra trigona - - - - - } 45. POLYSTACHYA.

Labellum anticum (sæpiùs). Flores membranacei. Alabastra teretia - - - - - } 47. DENDROBIUM.

Folia equitantia - - - - - 43. APORUM.

Pollinia 8.

Clinandrium cucullatum, margine erecto membranaceo. Anthera immersa - - - - - } 41. PHREATIA.

Clinandrium non cucullatum.

Sepala lateralibus basi æqualia - - - - - 40. MYCARANTHES.

Sepala lateralibus basi valdè obliqua - - - - - 42. ERIA.

XXVIII. COCHLIA.

Cochlia. *Blume Bijdr. 320. tabellen 59.*

Sepala erecta : lateralibus basi connatis. Petala minora. Labellum basi angustatum, ungui columnæ junctum, adscendens, supernè in limbum semilunatum margine revolutum et verrucosum dilatatum. Columna bicornis, recumbens. Anthera semibilocularis, columnam posticè terminans. Pollinia 2, ovata, libera.—Herba epiphyta caulescens. Caules vaginis scariosis imbricati. Folia coriacea, ovato-elliptica, suprà convexa, subtùs concava. Pedunculi laterales, solitarii. Flores capitati, violacei. *Character ex Blume.*

1. COCHLIA violacea. *Blume l. c.*

Hab. ad montem Salak insulæ Javæ, supra arbores, florens Novembri Decembri ; *Blume.*

XXIX. LYRÆA.

Sepala conniventia inæqualia : lateralibus inter se et cum basi producta columnæ connatis. Petala nana, spatulata. Labellum altè bilobum, cum basi productâ columnæ continuum, (nec articulatum). Columna nana, in ovario recumbens. Pollinia 2, in uno connata.—Herba, habitu Bolbophylli. *Char. ex A. Richard. orch. Maur. p. 62.*

This genus agrees entirely with Bolbophyllum in habit. It is distinguished by its labellum being deeply lobed and continuous, not articulated, with the column ; by its spatulate petals, and by the cohesion of the lateral sepals.

1. LYRÆA prismatica.

Bulbophyllum prismaticum. *Thouars orch. Afr. t. 109. A. Rich. orch. Maur. p. 62. t. 8. no. 3.*

Hab. in insulis Mauritiæ (Thouars, Bory), Borboniæ (Bory), supra arbores et saxa ; *A. R.*

Folia gemina e pseudo-tubere subtetragono, coriacea, oblongo-lanceolata, obtusa, obliquè emarginata. Scapus gracilis radicalis, palmaris, versus basin squamatus. Rachis gracilis. Flores lutescentes in spicam raram dispositi, ex axilla bractæ semicordatæ amplexicaulis.

XXX. MEGACLINIUM.

Megaclinium. *Lindl. in Bot. Reg.* 989.

Sepala erecta, inæqualia: lateralibus minoribus cum columna connatis. Petala nana. Labellum nanum integerrimum cum basi columnæ elasticè articulatum. Columna nana marginata disciformis in apicem ovarii prona basi vix producta. Anthera obsoletè bilocularis. Pollinia 4, libera, per paria cohærentia, æqualia.—Herbæ epiphytæ, rhizomate repente pseudo-bulbifero. Folia coriacea, avenia. Racemi radicales. Rachis dilatata, compressa.

A genus nearly related to *Bolbophyllum* from which however it is abundantly distinct.

1. *MEGACLINIUM falcatum.* *Lindley.*

M. foliis binis ovalibus emarginatis biplicatis, rachi compressâ falcatâ crenatâ, sepalo supremo obtuso apice utrinque calloso: lateralibus reflexis bidentatis, petalis minimis subulatis obtusis.

Megaclinium falcatum. *Lindley in Bot. Reg. t.* 989.

Hab. in *Sierra Leone* (v. v. cult.)

The lip of this plant is elastically articulated with the column, and exhibits a beautiful instance of vegetable irritability, analogous to that of some species of *Pterostylis*. The lip moves up and down with great rapidity, much in the same way as the head of the Chinese images of Mandarins.

2. *MEGACLINIUM maximum.*

Hab. in *S. Leone*; *Smeathman* (v. s. sp. in *Herb. Banks. sine floribus et foliis.*)

Rachis 5 uncias longa, semunciam lata, complanata, crenata. Scapus pedalis. Rhizoma pennæ cygneæ crassitudine. Pseudo-bulbus oblongus, verosimiliter angulatus.

XXXI. BOLBOPHYLLUM.

Bulbophyllum. *Thouars orch. Afr. Lindley in Bot. Reg.* 832. *Orch. scel. no.* 143.—*Bolbophyllum.* *Spreng. syst.* 3. p. 732.—*Diphyes.* *Blume Bijdr.* 310. *tabellen* 66.—*Tribrachia.* *Lindl. in Bot. Reg.* 832.—*Anisopetalum.* *Hooker Fl. Exot.* 149.

Sepala erecta, acuminata, subæqualia, lateralibus cum pede columnæ connatis et basi obliquis. Petala nana (rarissimè sepalis subæqualia). Labellum cum pede columnæ articulatum, unguiculatum, sæpiùs integrum, et posticum. Columna nana, anticè bidentata, v. bicornis. Anthera 1-v. 2-locularis. Pollinia 4, libera, valdè inæqualia, nunc in uno connata, nunc per paria cohærentia, altero cujusvis paris minuto lobuliformi.—Herbæ epiphytæ, rhizomate repente pseudo-bulbifero. Folia coriacea, avenia. Racemi radicales.

I have no hesitation in referring all the above cited genera hither. When I published *Tribrachia* I was only acquainted with *Bolbophyllum* through Du Petit Thouars's figures; I now know them to be the same. *Diphyes* is obviously a synonym. Dr. Hooker's *Anisopetalum* differs only in the greater inequality of the sepals. Even *Cirrhopetalum* itself is less distinct from *Bolbophyllum* than would appear from the inspection of the 1st and 2nd species.

§ I. *Flores fasciculati v. solitarii, radicales, speciosi.*1. *BOLBOPHYLLUM leopardinum.* *Lindl. in Wall. Cat. no. 1981.*

B. pseudo-bulbis cæspitosis ovato-oblongis vestitis, foliis coriaceis rigidis oblongis solitariis petiolatis, floribus radicalibus fasciculatis globoso-campanulatis, sepalis ovatis guttatis subæqualibus, petalis minoribus conformibus, labello carnoso ovato obtuso integerrimo.

Dendrobium leopardinum. Wallich Tentamen vol. 1. p. 39. t. 28.

Hab. in India Orientali in monte Chandaghiry super arborum truncos; Wallich. (habeo s. spont. e Museo Anglo-Indico.)

This is the handsomest species of the genus and is remarkable for its large globose pale yellowish green flowers spotted with purple. Dr. Wallich's description in the work above quoted is excellent.

2. *BOLBOPHYLLUM affine.* *Lindl. l. c. no. 1982.*

B. rhizomate crasso repente, pseudo-bulbis oblongis teretibus, foliis coriaceis rigidis oblongis solitariis petiolatis emarginatis, floribus radicalibus solitariis, sepalis petalisque æqualibus ovato-lanceolatis, labello carnoso ovato-lanceolato obtuso integerrimo.

Hab. in Napalia, Wallich. (habeo s. sp. e Museo Anglo-Indico.)

This species is nearly related to the preceding, with which it agrees in the position and size of its flowers, but it differs from it in their being solitary, in the more lanceolate figure of the floral envelopes, and especially in the petals being as large as the sepals; a solitary case in this genus.

3. *BOLBOPHYLLUM mutabile.*

B. "foliis coriaceis lanceolatis retusis, pedunculis folio brevioribus bifloris." Blume.

Diphyes mutabilis. Blume Bijdr. 312.

Hab. in sylvis altioribus montis Salak insulæ Javæ, florens Julio Septembri; Blume.

"Caules ebulbi. Pedunculi breves pauciflori. Gynostemium bicuspidatum. Anthera 1-locularis. Flores virescentes demum crocei; sepala exteriora acuminata; labellum miniatum; limbus obtusus, subcrenulatus." Blume.

4. *BOLBOPHYLLUM ciliatum.*

B. "bulbis remotis, foliis lineari-lanceolatis, pedunculis folio brevioribus." Blume.

Diphyes ciliata. Blume Bijdr. 317.

Hab. ad originem fluvii Tjiburrum Javæ, in montosis Gede, florens Junio; Blume.

"Pedunculi solitarii uniflori. Flores violacei, sepalis exterioribus acuminatis, labelli limbo ciliolato." Blume.

5. *BOLBOPHYLLUM cernuum.*

B. "bulbis approximatis, foliis lanceolatis, pedunculis folio longioribus cernuis." Blume.

Diphyes cernua. Blume Bijdr. 318.

Hab. in sylvis humidis montis Salak, Javæ, florens Septembri; Blume.

"Pedunculi solitarii uniflori. Flores purpurascens, sepalis exterioribus elongatis, labelli limbo margine reflexo, antherâ cristatâ." Blume.

6. *BOLBOPHYLLUM parvulum*.

B. "bulbis approximatis depressis, foliis ovalibus obtusis, pedunculis folio valdè longioribus, sepalis exterioribus inæqualibus acutis, labelli limbo obtuso glanduloso tumido." *Blume*.

Diphyes pusilla. *Blume Bijdr.* 317.

Hab. in sylvis montis Salak, *Javæ*, ad corticem arborum, florens Junio Decembri; *Blume*.

"Pedunculi solitarii uniflori. Flores aurantiaci, sepalo dorsali nervoso." *Blume*.

7. *BOLBOPHYLLUM hirsutum*.

B. "bulbis approximatis, foliis lanceolatis, sepalis exterioribus subæqualibus apice hirsutis, labelli limbo obtuso intus glanduloso." *Blume*.

Diphyes hirsuta. *Blume p.* 318.

Hab. prope cataractas calidas montis Gede supra arbores et in altioribus Salak, *Javæ*, florens Maio Augusto; *Blume*.

"Flores aurantiaci, sepalis ovali-oblongis acutis striatis, labello internè lineis 2 elevatis notato."

8. *BOLBOPHYLLUM ovalifolium*.

B. "bulbis approximatis, foliis ovalibus, sepalis exterioribus lanceolatis inæqualibus, labelli limbo obtuso." *Blume*.

Diphyes ovalifolia. *Blume p.* 318.

Hab. in montosis Gede, *Javæ*, florens Junio; *Blume*.

"Flores flavo-virentes, sepalis lateralibus dorsali majoribus, labello brunneo."

9. *BOLBOPHYLLUM inæquale*.

B. "bulbis approximatis, foliis lineari-lanceolatis obtusis, sepalis lateralibus postico ferè duplò longioribus acuminatis, labelli limbo verrucoso." *Blume*.

Diphyes inæqualis. *Blume p.* 319.

Hab. in sylvis primævis montis Pangoerangoe, *Javæ*, florens Novembri; *Blume*.

"Flores aurantiaci, nervis atropurpureis. Labellum atropurpurascens."

10. *BOLBOPHYLLUM bicolor*.

B. pseudo-bulbis ovalibus, foliis solitariis oblongis coriaceis emarginatis floribus longioribus, corymbo trifloro pedunculato, sepalo supremo oblongo cuspidato: lateralibus lanceolatis longioribus, petalis oblongis cuspidatis, labello ovato obtuso.

Hab. in *China*; *Reeves. (v. ic. pict. Sinens. in Bibl. Hort. Soc.)*

Flores speciosi, crocei. Sepalum supremum et petala apice purpurea purpureo punctata. Labellum croceum puncticulatum.

11. *BOLBOPHYLLUM tenellum*.

B. "bulbis approximatis, foliis lanceolatis obtusis, sepalis inæqualibus: lateralibus ovalibus obtusis dorsali lanceolato majoribus, labelli limbo tumido verrucoso." *Blume*.

Diphyes tenella. *Blume p.* 319. t. 66.

May, 1830.

Hab. propè Passir Ipis provinciæ Buitenzorg, *Javæ*, florens Julio; Blume.
 “Flores pallidè aurantiaci; labellum atropurpureum, internè canalicu-
 latum.”

12. *BOLBOPHYLLUM gracile*.

B. “bulbis approximatis, foliis lineari-spatulatis, sepalis exterioribus acu-
 minatis.” *Blume*.

Diphyes gracilis. *Blume* p. 319.

Hab. in sylvis humidis montis ignivomi Gede, *Javæ*, florens Junio; Blume.
 “Flores pallidè aurantiaci, limbo labelli obtuso, glanduloso.”

13. *BOLBOPHYLLUM mucronatum*.

B. “bulbis remotis, foliis ovalibus planis mucronulatis, labello carinato.”
Blume.

Diphyes mucronata. *Blume* p. 317.

Hab. in montanis Pantjar, *Javæ*, florens Junio Julio; Blume.

“Pedunculi confertè multiflori. Flores pallidè flavescentes, sepala exteriora
 acuminata, subæqualia, internè spatulata, acuta. Gynostemium inte-
 grum.”

14. *BOLBOPHYLLUM tenuifolium*.

B. “bulbis remotis, foliis ovalibus margine recurvis, labello internè cari-
 nato.” *Blume*.

Diphyes tenuifolia. *Blume* p. 316.

Hab. in sylvis montis Salak, *Javæ*, florens Octobri; Blume.

“Pedunculi confertè multiflori. Flores pallidè flavi, sepalis exterioribus
 subæqualibus, dorsali nervis atropurpureis, interioribus minutissimis,
 obtusis, margine punctis purpureis variegatis. Labellum eglandulosum.
 Anthera dorso cristata.” *Blume*.

15. *BOLBOPHYLLUM violaceum*.

B. “bulbis remotis, foliis lanceolatis obtusis, sepalis interioribus obliquè
 emarginatis.” *Blume*.

Diphyes violacea. *Blume* p. 316.

Hab. in sylvis Salak, *Javæ*, florens Septembri; Blume.

“Pedunculi confertè multiflori. Flores violacei, sepalis exterioribus acu-
 minatis. Labellum obtusum, limbo flavo. Anthera dorso glandulosa.”

16. *BOLBOPHYLLUM tortuosum*.

B. “foliis lineari-lanceolatis, labello utrinque hirsuto, gynostemii appen-
 dicibus tortuosis.” *Blume*.

Diphyes tortuosa. *Blume* p. 311.

Hab. in arboribus ad montem Salak, *Javæ*, florens Octobri; Blume.

“Sepala exteriora nervis 3 atropurpureis. Labellum carnosum, atropur-
 pureum, limbo luteo. Caules ebulbi.”

§ II. *Flores spicati v. racemosi; rachi filiformi.*

17. *BULBOPHYLLUM auricomum*. *Lindl. in Wall. Cat. no. 1985.*

B. pseudo-bulbis ovatis teretibus, foliis; scapis elongatis erectis,

spicâ cernuâ multiflorâ, sepalis ovatis acuminatis æqualibus glaberrimis, petalis obtusis ciliatis, labello minimo ovato obtuso carnosio integerrimo.

Hab. in Tavoy, *Indiæ Orientalis*, Wallich. (habeo s. sp. e Museo Anglo-Indico.)

Pollinia 4, per paria cohærentia, interioribus minimis lobuliformibus.

18. *BOLBOPHYLLUM hirtum*. Lindl. l. c. no. 1989.

B. pseudo-bulbis cæspitosis ovatis teretibus, foliis; scapis erectis pubescentibus, spicis recurvis villosis multifloris, sepalis acuminatis subæqualibus, petalis minutis ovatis, labello lineari integerrimo retuso.

Stelis hirta. Smith! in Rees.

Tribrachia hirta. Lindley Coll. 41.

Hab. in Napalia, Wallich. (hab. s. sp. e Museo Anglo-Indico, et v. ic. pict.)

Omnes partes floris valdè hirtæ. Flores virescentes. Scapi 4-unciales; spicæ æquilongæ. Pollinia 4, per paria cohærentia; interioribus minimis excavatione majorum jacentibus.

19. *BOLBOPHYLLUM Careyanum*. Spreng.

B. rhizomate repente, pseudo-bulbis ovatis angulatis, foliis lineari-loratis erectis solitariis, spicis cylindræis densifloris erectis pseudo-bulbis longioribus, sepalis lateralibus maximis, petalis triangularibus apice subulatis, labello trilobo plano: lobis lateralibus abbreviatis.

Pleurothallis purpurea. Don Prodr. 33.

Tribrachia purpurea. Lindl. Coll.

Anisopetalum Careyanum. Hooker l. c. t. 149.

Bolbophyllum Careyanum. Spreng. syst. 3. 732. Wall. Cat. no. 1990.

Hab. in Napalia et Martabania, Wallich. (hab. s. sp. e Museo Angl. Ind.)

Flores in icone Hookerianâ sepalis sordidè luteis purpureo maculatis, petalis flavis, labello plumbeo violaceo, columnâ croceâ; in Wallichiano fusco-purpurei sine ullo alio colore. Pollinia 4, per paria cohærentia, interioribus minimis nec æqualibus ut vult cel. Hooker.

20. *BOLBOPHYLLUM reptans*. Lindl. l. c. no. 1988.

B. rhizomate repente, pseudo-bulbis ovatis teretibus, foliis solitariis linearibus apice obsoletè bidentatis, scapo erecto foliis brevioribus, racemo laxo, bracteis membranaceis ovario longioribus, sepalis lanceolatis subæqualibus: lateralibus basi obliquis, petalis minutis oblongis obtusis, labello ovato integerrimo, columnâ bicorni.

Tribrachia reptans. Lindley Coll. 41. t. A.

Hab. in Napalia, Wallich. (hab. s. sp. e Museo Anglo-Indico et v. ic. pict.)

Sepala pallidè crocea; petala alba; labellum disco purpurascens. Pseudo-bulbi juniores ramentis vestiti; adulti nudi.

21. *BOLBOPHYLLUM variegatum*. Thouars.

B. rhizomate repente, pseudo-bulbis ovato-subrotundis teretibus, foliis binis lineari-loratis acutis, scapis erectis foliis brevioribus, spicis nutantibus, sepalis acuminatis, petalis ovatis, labello canaliculato integerrimo obtuso, bracteis maximis.

Bulbophyllum variegatum. Thouars orch. Afr. t. 105. 106. A. Rich. orch. Maur. p. 64.

Bulbophyllum nutans. A. Rich. orch. Afr. p. 63. t. 8. no. 2.

Hab. in insula Borboniæ; Thouars.

22. *BOLBOPHYLLUM nutans.* *Thouars.*

B. rhizomate repente filiformi, pseudo-bulbis subrotundis subquadratis, foliis binis oblongis retusis, scapis foliis longioribus subnutantibus, sepalis ovatis acutis, petalis minoribus conformibus, labello ovato canaliculato subcordato.

Bulbophyllum nutans. *Thouars t.* 107. *Ach. Rich. orch. Maur. p.* 63.

Hab. in insulis *Mauritii* et *Borboniæ*, Commerson, Thouars.

23. *BOLBOPHYLLUM pendulum.* *Thouars.*

B. rhizomate filiformi, pseudo-bulbis subrotundis subquadratis, foliis binis lineari-oblongis emarginatis, scapis foliis brevioribus recurvis, sepalis oblongis acutis: lateralibus collateralibus majoribus, petalis ovatis, labello carnosio cordato-ovato obtuso.

Bulbophyllum pendulum. *Thouars t.* 104. *A. Rich. p.* 65.

Hab. in *Mauritio*; Thouars.

24. *BOLBOPHYLLUM densum.* *Thouars.*

B. rhizomate repente, pseudo-bulbis ovalibus, foliis binis lineari-loratis obliquè emarginatis scapis brevioribus, spicis erectis, sepalis ovatis inferioribus majoribus, labello ovato-cordato integerrimo.

Bulbophyllum densum. *Thouars t.* 108. *A. Rich. p.* 64.

Hab. in *Mauritio*, Thouars.

25. *BOLBOPHYLLUM incurvum.* *Thouars.*

B. pseudo-bulbis subquadratis, foliis solitariis ovali-oblongis obliquè emarginatis, scapis erectis foliis longioribus, spicis nutantibus, sepalis acuminatis, petalis linearibus, labello oblongo ciliato, columnâ bicorni.

Bulbophyllum incurvum. *Thouars t.* 95. *A. Rich. orch. Maur. p.* 64.

Hab. in *Mauritio*; Thouars.

26. *BOLBOPHYLLUM gracile.* *Thouars.*

B. pseudo-bulbis ovalibus compressis, foliis geminis lineari-loratis emarginatis scapo erecto gracili brevioribus, vaginis scapi inflatis, spicâ filiformi multiflorâ.

Bulbophyllum gracile. *Thouars t.* 101.

Hab. in *Mauritio*; Thouars.

Flores minimi, vix noti; verosimiliter tamen hujus generis.

27. *BOLBOPHYLLUM minutum.* *Thouars.*

B. rhizomate filiformi, pseudobulbis subrotundis foliis binis oblongis emarginatis subæqualibus, scapo erecto elongato, spicâ pauciflorâ, sepalis ovatis petalisque acutis, labello oblongo convexo integerrimo.

Bulbophyllum minutum. *Thouars t.* 110.

Hab. in *Madagascar*; Thouars.

28. *BOLBOPHYLLUM Commersonii.* *Thouars.*

B. rhizomate repente, pseudo-bulbis oblongis subangulatis, foliis solitariis oblongis obliquè emarginatis, scapo erecto multifloro foliis longiore, floribus

Bulbophyllum Commersonii. *Thouars t.* 97.

Hab. in *Borbonia*; Thouars.

29. *BOLBOPHYLLUM erectum*. *Thouars*.

B. rhizomate filiformi; pseudo-bulbis subrotundis angulatis, foliis oblongis solitariis emarginatis, scapo erecto foliis longiore, spicâ laxâ nutante, sepalis lateralibus acuminatis: supremo acuto, petalis subulatis, labello oblongo ciliato, columnâ muticâ.

Bulbophyllum erectum. *Thouars t. 96*.

Hab. in *Madagascar*; *Thouars*.

30. *BOLBOPHYLLUM recurvum*.

B. pseudo-bulbis ovatis compressis cæspitosis, foliis solitariis oblongis obliquè emarginatis subtùs purpureo-maculatis, scapis pendulis foliis duplò longioribus, spicis quadrifariâ imbricatis, sepalis ovatis acutis ciliatis, petalis obovatis, labello ovato integerrimo carnosio.

Tibrachia pendula. *Lindley in Bot. Reg. t. 963*.

Hab. in *Sierra Leone*. (*v. v. cult.*)

Flores virescentes; rachi et labello purpureis. Pollinia 4, omnia cohærentia, interioribus obsoletis.

31. *BOLBOPHYLLUM tetragonum*.

B. pseudo-bulbis ovatis acutè tetragonis, foliis solitariis, rachi tetragonâ pubescente, bracteis oblongis acutis dorso pubescentibus capsularum longitudine, sepalis ovatis æqualibus, petalis subulatis, labello ovato apiculato margine membranaceo serrato.

Hab. in *Sierra Leone*. (*v. v. cult. sine floribus, et s. spontaneum.*)

Exemplar seminiferum et spicæ partem tantùm vidi. Rachis flexuosa tetragona sulcata, pilis nigris raris adpersa. Bracteæ cymbiformes, subtùs pilosæ, florum longitudine, sessiles, semiamplexicaules. Flores parvi, recti, sepalis ovatis, conniventibus, æqualibus, petalis subulatis columnâ paulò longioribus erectis. Columna subrotundo-ovata, anticè alata (alis marginem rotundatum formantibus a basi anticâ usque ad cardinem antheræ, ubi in processu ovato connascuntur) callo plano prominente elliptico transverso ad ipsam basin anteriorem. Stigma pulvinatum subquadratum, in facie columnæ intra margines. Labellum minimum, oblongum, carnosum, marginatum, faciei columnæ incumbens apice reflexo, marginibus tenuibus serratis.

This curious little plant was formerly cultivated in the Garden of the Horticultural Society, but is now lost. It is frequently sent from *Sierra Leone* mixed with other epiphytes, and is, I should think, very common in that colony.

32. *BOLBOPHYLLUM polyrhizum*.

B. pseudo-bulbis ovatis cæspitosis, foliis, scapis erectis, spicis laxis erectis 5-6-floris, sepalis ovatis obtusis æqualibus, petalis minimis, labello sessili ovato obtuso integerrimo.

Hab. in *India Orientali*; *Wallich*. (*v. ic. pict.*)

Pseudo-bulbi atrovirides. Flores viridi lutei.

33. *BOLBOPHYLLUM cylindraceum*.

B. pseudo-bulbis nullis, foliis solitariis oblongo-lanceolatis petiolatis scapis duplò brevioribus, spicâ densissimâ cylindraceâ ad basin spathâ involutâ,

sepalis lateralibus semiovatis planis collateralibus: supremo minore, petalis minimis ovatis obtusis, labello ovato obtuso.

Hab. in *India Orientali*; Wallich. (v. ic. pict.)

Folia pedalia, atroviridia, squamis cinnamomeis ad basin. Scapi sesquipedales, erecti; spicæ 6-unciales. Flores albi, densissimè imbricati, labello et sepalis lateralibus semper posticis planis: supremo antico abbreviato acuto.

I know this very remarkable plant only from an excellent drawing in Dr. Wallich's possession. It is not more remarkable for its very dense imbricated flowers, which have a great spathe-like bractea at the base of their spike, than for the want of the spurious bulbs, which are, with this single exception, characteristic of the genus.

34. BOLBOPHYLLUM gibbosum.

B. "foliis petiolatis lanceolatis obtusiusculis coriaceis, labelli limbo obtuso lineato margine nudo, ungue gynostemii gibboso." *Blume*.

Diphyes gibbosa. *Blume Bijdr.* 312. tab. 66.

Hab. in sylvis altioribus montis Salak, *Javæ*, florens Junio; *Blume*.

"Caules radicales ebulbi. Pedunculi elongati, solitarii, spicato-multiflori. Gynostemium bifidum. Flores pallidè flavi, labello aurantiaco basi canaliculato. Variat foliis acuminatis." *Blume*.

35. BOLBOPHYLLUM odoratum.

B. "foliis petiolatis lanceolatis nervosis, labello internè glanduloso." *Blume*."

Diphyes odorata. *Blume Bijdr.* 312.

Hab. in truncis arborum ad originem fluvii Tjiburum, *Javæ*, florens Junio; *Blume*.

"Caules radicales ebulbi. Pedunculi elongati, solitarii, spicato-multiflori. Gynostemium bifidum. Flores flavi parvi odoratissimi." *Blume*.

36. BOLBOPHYLLUM flavescens.

B. "foliis breviter petiolatis lineari-lanceolatis, pedunculo basi vaginato multifloro, labelli limbo obtuso ciliato." *Blume*.

Diphyes flavescens. *Blume Bijdr.* 313.

Hab. in montosis *Javæ* supra arbores; *Blume*.

"Caules radicales ebulbi. Pedunculi elongati, solitarii, spicato-multiflori. Gynostemium bifidum. Flores pallidè flavi, sepalis exterioribus acuminatis inæqualibus; labellum infernè carinatum aurantiacum. Variat α , spicis trifloris, floribus concoloribus; β foliis latioribus longiter petiolatis, spicis multifloris, floribus minoribus concoloribus, labello angusto." *Blume*.

37. ? BOLBOPHYLLUM pumilum.

B. "caule radicante filiformi bulbifero, bulbis monophyllis, folio oblongo, scapis basilaribus tenuissimis elongatis apice flexuosis." *Swartz*.

Dendrobium pumilum. *Swartz. Pers. syn.* 2. 523.

Hab. in *Sierra Leone*; *Swartz*.

§ III. *Flores spicati; rachi clavata v. incrassata.*38. *BOLBOPHYLLUM clavatum.* *Thouars.*

B. pseudo-bulbis ovatis diphyllis, foliis oblongo-loratis emarginatis obtusis, rachi clavata, floribus semi-immersis, sepalis lateralibus connatis.

Bulbophyllum conitum. *Thouars orch. Afr. t. 100.*

Bulbophyllum clavatum. *Id. t. 99. A. Rich. orch. Maur. p. 61.*

Hab. in Mauritio; Thouars.

Flores purpurascentes. Pollinium solitarium, subbilobum. A. Rich.

Obs. Medium inter Bulbophyllum et Lyræam, illius speciebus conveniens labello, petalis et habitu, vix hac ob sepala lateralibus connata consociandum.

39. *BOLBOPHYLLUM pusillum.* *Thouars.*

B. rhizomate filiformi, pseudo-bulbis subquadratis foliorum magnitudine, foliis solitariis oblongis obtusis, scapis erectis foliis longioribus, rachi clavata, sepalis ovatis, petalis linearibus, labello ovato-cordato carnosissimo integerrimo.

Bulbophyllum pusillum. *Thouars t. 102. A. Rich. p. 64.*

Hab. in Mauritio; Thouars.

40. *BOLBOPHYLLUM cæspitosum.* *Thouars.*

B. rhizomate repente intricato, pseudo-bulbis oblongis subquadratis, foliis geminis lineari-oblongis oblique retusis, scapis erectis foliis subæqualibus, rachi clavata, sepalis ovatis, petalis linearibus acutis, labello sagittato ovato obtuso.

Bulbophyllum cæspitosum. *Thouars t. 103.*

Hab. in Borbonia; Thouars.

§ IV. *Flores capitati. (Cirrhopetalo proxima.)*41. *BOLBOPHYLLUM radiatum.* *Lindl. in Wall. Cat. no. 1986.*

B. rhizomate crasso, pseudo-bulbis elongatis teretibus, foliis oblongis apice integerrimis, scapis erectis filiformibus folio brevioribus, bracteis minimis, floribus capitatis radiatis, sepalis acuminatissimis acutis.

Hab. in Tavoy, Indiæ Orientalis, Wallich. (hab. s. sp. e Museo Anglo-Indico.)

Sepala æqualia. Petala longè aristata. Pollinia 4, per paria cohærentia interioribus minimis.

This species differs from the next in its very taper sepals, in the petals being also finely acuminate, in its obsolete bractæ, and in the squamæ of the scape being very small, not dilated as in *B. odoratissimum*. It approaches *Cirrhopetalum* from which it differs in the equal size of its sepals, and it forms a transition from *Cirrhopetalum* to *Bulbophyllum*.

42. *BOLBOPHYLLUM odoratissimum.* *Lindl. l. c. no. 1987.*

B. rhizomate filiformi repente, pseudo-bulbis cylindræis, foliis solitariis oblongis striatis retusis, scapis erectis folio brevioribus, bracteis membranaceis acuminatis floribus capitatis subæqualibus, sepalis carnosissimis acuminatis obtusis.

Stelis odoratissima. Smith! in Rees.

Stelis caudata. Don. Prodr. 32.

Tribrachia odoratissima. Lindl. Coll. 41.

Hab. in *Napalia*, *Wallich*; fortè etiam in *China*. (*hab. s. sp. e Museo Anglo-Indico*.)

Flores in capitulis rotundis, depressis. Bracteæ longæ scariosæ, persistentes. Sepala antica basi connata. Petala minuta, membranacea, obtusa. Labellum parvum, ovatum, carnosum, sulcis tribus in medio, in columnam pronum. Columna apice bicornis. Pollinia per paria coherrentia, interioribus minoribus.

There is a Chinese drawing in the collection of the Horticultural Society of what appears to be this species.

43. *BOLBOPHYLLUM umbellatum*. *Lindl. l. c. no. 1984*.

B. rhizomate repente, pseudo-bulbis ovatis subangulatis, foliis solitariis lineari-loratis obtusis emarginatis, scapis foliis triplò brevioribus, floribus corymbosis, sepalis lateralibus obliquis falcatis obtusis majoribus, petalis ovatis obtusis, labello cordato ovato complicato integerrimo, columnâ marginatâ bicorni.

Hab. in *Napalia*, *Wallich*. (*hab. s. sp. defloratum e Museo Anglo Indico, et v. ic. pict.*)

Flores subumbellati, virides, longè pedunculati, majores. Sepalum supremum lateralibus multò minus. Pollinia tantum 2, ex icone *Wallichiano*.

44. *BOLBOPHYLLUM caudatum*. *Lindl. l. c. no. 1983*.

B. rhizomate filiformi intricato, pseudo-bulbis ovatis subquadratis, foliis ovatis solitariis, floribus capitatis, scapis pseudo-bulbis æqualibus, sepalis lateralibus longissimè filiformi-acuminatis: supremo acuminato, petalis minutis ovatis, labello trilobo, columnâ bicorni.

Hab. in *Napalia*, *Wallich*. (*habeo s. sp. e Museo Anglo-Indico, et v. ic. pict.*)

This beautiful little species is at once recognized by the long filiform terminations of its lateral sepals, and the shorter termination of the upper. The flowers are small, pure white, and almost hidden among the leaves.

45. *BOLBOPHYLLUM capitatum*.

B. "bulbis remotis compressis, foliis lanceolatis acutis, pedunculo brevi, floribus 5-7 laxè capitatis bracteis canaliculatis cinctis." *Blume*.

Diphyes capitata. *Blume p. 314*.

Hab. ad truncos arborum in sylvis primævis *Gede et Salak, Javæ*, florens Aprili; *Blume*.

"Flores mediocres, pallidè flaventes, sepalis exterioribus acuminatis, lateralibus dorsali majoribus; interioribus obtusis: labellum tumidum, basi canaliculatum; limbus obtusus. *Variat* bulbis teretiusculis et subcompressis, foliis acutiusculis v. obtusis." *Blume*.

46. *BOLBOPHYLLUM obtusum*.

B. "bulbis subremotis, foliis lineari-lanceolatis obtusis, pedunculo brevi apice 2-3-floro." *Blume*.

Diphyes obtusa. *Blume p. 315*.

Hab. in sylvis obscurioribus montium *Gede et Salak, Javæ*, florens Aprili Maio; *Blume*.

"Planta pusilla; flores pallidè flaventes, sepalis exterioribus acuminatis: lateralibus dorsali majoribus apice incrassatis, interioribus acutis; labelli limbo obtuso. *Variat* bulbis fusinis et ovatis, et etiam latitudine foliorum." *Blume*.

47. *BOLBOPHYLLUM* sulcatum.

B. "bulbis ovatis oblongis sulcatis remotis; foliis lineari lanceolatis obtusis, pedunculis filiformibus folio longioribus 3-floris, sepalis exterioribus acuminatis subæqualibus." *Blume*.

Diphyes sulcata. *Blume* p. 314.

Hab. in cacumine montis Salak, *Javæ*, florens Augusto; *Blume*.

"Planta pusilla, hinc *T. angustifoliæ* inde *T. obtusæ* affinis, floribus pallidè flavescentibus."

48. *BOLBOPHYLLUM* angustifolium.

B. "bulbis fusinis remotis, foliis lineari-lanceolatis acutis, pedunculis folio brevioribus, floribus laxè capitatis." *Blume*.

Diphyes angustifolia. *Blume* p. 314.

Hab. in montosis Gede et Salak, *Javæ*, florens Junio Octobri; *Blume*.

"Flores parvi, sepalis exterioribus acuminatis apice aurantiacis. *Variat* bulbis ovatis, foliis lanceolatis obtusiusculis v. obtusis, in sylvis montis Salak prope Passir *Java*, florens Augusto." *Blume*.

49. *BOLBOPHYLLUM* croceum.

B. "bulbis remotis, foliis lato-lanceolatis, pedunculis nutantibus, floribus densè capitatis." *Blume*.

Diphyes crocea. *Blume* p. 313.

Hab. in sylvis montosis Salak et Burangrang, *Javæ*, florens Junio Novembri; *Blume*.

"Flores crocei, sepalis exterioribus longissimè acuminatis. Labellum crassum; limbus internè pubescens. *Variat* floribus pallidè flaventibus foliis angustioribus." *Blume*.

50. *BOLBOPHYLLUM* laxiflorum.

B. "bulbis remotis, foliis lanceolatis, pedunculis cernuis." *Blume*.

Diphyes laxiflora. *Blume* p. 316.

Hab. ad margines fluvii Tjiapus supra arbores, *Javæ*, florens Decembri; *Blume*.

"Flores pallidè flavi, sepalis acuminatis; labellum internè linea prominente notatum, infernè aurantiacum."

Species dubiæ v. parùm cognitæ.

51. ? *BOLBOPHYLLUM* serpens.

B. "caule radicante bulbifero, bulbis diphyllis, foliis ovatis, scapis radicalibus." *Swartz*.

Cymbidium reptans. *Swartz nov. act. Ups.* 6. p. 71.

Dendrobium reptans. *Swartz act. Holm.* 1800. p. 247. *Willd. no.* 25. *Pers. syn.* 2.523.

Hab. in *Mauritio*; *Swartz*.

52. ? *BOLBOPHYLLUM* galeatum.

B. "caule communi reptante radicante, partialibus vaginatis monophyllis, folio lato-lanceolato obtuso, racemo multifloro, floribus conicis incurvo-galeæformibus." *Swartz*.

Dendrobium galeatum. *Swartz Pers syn.* 2.523.

May, 1830.

Hab. in *Sierra Leone*; *Afzelius*. (adest in *Herb. Banks.*)

Non *Dendrobium*, vix *Bolbophyllum*; nescio quid. Flores magni, desiccatione nigri, verosimiliter carnosi.

53. *BOLBOPHYLLUM* pygmæum.

B. rhizomate repente filiformi, foliis solitariis subsessilibus ellipticis pubescentibus coriaceis.

Dendrobium pygmæum. Smith in Rees.

Hab. in *Nova Zelandia*. (v. s. *defloratum* in *Herb. Smith.*)

"Stems thread-shaped, slender. Leaves alternate on very short footstalks, elliptical, obtuse, revolute, coriaceous rather than fleshy; ribbed and roughish beneath; clothed above with short, prominent downy hairs. Each footstalk proceeds from a little round bulb like a ring, smooth and shining yellowish and much wrinkled in a dry state but apparently very succulent when fresh." *Smith l. c.*

XXXII. CIRRHOPETALUM.

Cirrhopetalum. Lindl. in Bot. Reg. 832. (Oct. 1824). Orch. scel. no. 149.—Zygoglossum. Reinwardt in Bot. Zeitung 1825. vol. 2. p. 4.

Sepala ringentia: lateralibus acuminatis, valdè obliquis, basi productæ columnæ adnatis, supremo multò longioribus. Petala nana apiculata. Labellum integrum, cum basi columnæ articulatum. Columna minima basi longè producta, apice cornubus duobus petaloideis. Anthera bilocularis. Pollinia 4, quorum 2 interiora multò minora, lamelliformia.—Herbæ epiphytæ, rhizomate repente, pseudo-bulbos monophyllos gerente. Folia coriacea avenia. Flores densè racemosi, nunc radiati, in apice scapi radicalis.

The great obliquity of the base, and elongation of the apex of the lateral sepals distinguish this from *Bolbophyllum*, with which it is connected through *B. caudatum* which has a short upper sepal.

1. *CIRRHOPETALUM* Thouarsii. *Lindl.*

C. petalis ciliatis sepaloque supremo aristatis, foliis oblongis obtusis emarginatis scapo brevioribus.

Epidendrum umbellatum. Forst.! non Swartzii.

Bulbophyllum longiflorum. Thouars orch. Afr. t. 98.

Cirrhopetalum Thouarsii. Lindl. in Bot. Reg. 832 in textu.

Zygoglossum umbellatum. Reinw. l. c.

Cymbidium umbellatum. Spreng. syst. 3. 723.

Hab. in *Otaheite* (*Forster*); in *Java* (*Reinwardt*); in *Mauritio* et *Madagascar* (*Thouars*). (v. s. *sp. in Herb. Banks. sine floribus.*)

Flores fusci; *Thouars*.

2. *CIRRHOPETALUM* Roxburghii.

C. petalis ciliatis acutis, sepalis omnibus acuminatis, foliis lanceolatis, umbellâ radiatâ multiflorâ.

Aerides radiatum. Roxb. Mss. in Museo Indico.

Hab. arborum epiphytum ad ostia *Gangis*, florens tempore pluvioso; *Roxburgh*.

Affinitatem cum *C. Wallichii* indicavit cl. *Wallich*. Folia 3-4 uncias longa,

unâ latitudine minora. Scapus umbellam 10-12-floram gerens. Flores lutei : sepalum supremum et petala purpureo-venosa : sepala lateralibus basi leviter connata supremo quintò v. sextò longiora, falcata. Columna anticè alata. *Roxb. Mss.*

3. *CIRRHOPETALUM vaginatum.* *Lindl. in Wall. Cat. no. 1979.*

C. sepalo supremo obtuso mutico ; inferioribus longissimè acuminatis, vaginis scapi oblongis obtusis ventricosis, racemo paucifloro recurvo.

Hab. ad *Singapore*, supra arbores crescens, florens Octobri, *Wallich.* (v. s. sp. in *Herb. Mus. Anglo-Ind.*)

Rhizoma repens tortuosum. Pseudo-bulbi parvi ovato-oblongi. Folia ignota. Scapus 4 uncias altus vaginis tribus vestitus. Racemus brevis recurvus, 4-5-florus, bracteis acuminatis elongatis.

4. *CIRRHOPETALUM Blumii.*

C. petalis pubescentibus acutis, sepalis omnibus acuminatis, foliis lineari-lanceolatis, pedunculis unifloris.

Ephippium ciliatum. *Blume Bijdr. 309. tab. 65.*

Hab. in sylvis altioribus montis Salak, *Javæ*, florens Junio ; *Blume.*

Pseudo-bulbi ovati, sulcati. Sepalum dorsale canaliculatum infernè ciliolatum. Labellum orbiculatum longissimè cuspidatum. Columna bicornis ; ex *Blume.*

5. *CIRRHOPETALUM Wallichii.* *Lindl. l. c. no. 1980.*

C. petalis sepaloque supremo oblongis retusis muticis, foliis oblongo-lanceolatis obtusis scapi longitudine.

Hab. in *Napalia*, *Wallich.* (hab. s. sp. e *Mus. Angl. Ind. et v. ic. pict.*)

Species cæteris duplò minor, caule filiformi pseudo-bulbifero. Pseudo-bulbi ovati monophylli. Folia coriacea, 3 uncias longa, obtusa, subseptem-venia, subtus purpurea punctulata. Scapi radicales 3-unciales squamis circiter tribus vestita. Umbellæ 4-floræ, (6-8-floræ, *Wall.*) bracteis paucis subulatis. Flores fulvi, horizontales. Petala et sepalum supremum conformia trivenia, basi leviter sanguinea ; sepala lateralibus basi torta, falcata, acuminata. Labellum ovatum conduplicatum integerrium petalis multò minus, cum pede incurvo columnæ articulatam, intus punctatum. Columna bidentata. Pollinia 2 ? potius 4 per paria agglutinata. *Ad iconem Wallichianam.*

6. *CIRRHOPETALUM Macraei.*

C. petalis apiculatis nudis, sepalis omnibus acuminatis, foliis oblongo-lanceolatis obtusis emarginatis scapo subæqualibus.

Hab. in sylvis *Zeylonæ* arboribus insidens ; *Macrae.* (habeo s. sp. et v. ic. pict.)

Umbella pauciflora. Flores pallidè virides fusco-rubro venosi. Sepalum supremum acuminatum ; lateralibus valdè elongata acuminatissima cum basi valdè producta columnæ connata. Petala falcata, sepalo supremo paulò minora, obtusa, purpurea, apiculata, glabra. Labellum non vidi, cum columnæ pede articulatam. Columna libera, utrinque alata, ad apicem in cornua duo membranacea falcata hinc bidentata elongata. Pollinia 4, quorum duo interiora multò minora lamelliformia.

XXXIII. TRIAS.

Sepala æqualia, ovata, patentia, basibus suis connata, a pede columnæ ferè libera. Petala minima, erecta. Labellum minimum, indivisum, in columnam pronum et cum ejus basi producta articulatum, ad latera leviter semidentatum. Columna nana, semiteres, marginata, libera. Anthera bilocularis, apice in membranam petaloideam, cuneatam, emarginatam, producta. Pollinia 4, duobus interioribus minoribus.—Herbæ minimæ, pseudo-bulbis subrotundis glabris cæspitem densum formantibus, monophyllis, foliis parvis coriaceis aveniis. Pedunculi erecti, radicales, foliis breviores, uniflori. Flores majusculi, viridi-fusci, aperti triangulum efficientes.

Est Stelis inter Dendrobieas.

1. TRIAS oblonga. *Lindl. in Wall. Cat. no. 1977.*

T. foliis oblongis.

Hab. in Moalmyn, *Indiæ Orientalis*, *Wallich.* (*hab. s. sp. ex Herbario Angl. Ind. et v. ic. pict.*)

Flores fusco-virides, labello purpurascente, petalis fusco-viridibus.

2. TRIAS ovata.

T. foliis ovatis.

Hab. in *India Orientali*, *Wallich.* (*v. ic. pict.*)

An prioris mera varietas, foliorum formâ et labello viridi nec purpureo præcipuè diversa. Petala alba rubro striata.

XXXIV. MACROSTOMIUM.

Macrostomium. *Blume Bijdr. p. 335. t. 37.*

Sepala reflexa; lateralibus cum basi producta columnæ in calcar breve obtusum connatis. Petala minora, reflexa. Labellum ecalcaratum, unguiculatum, medio dilatatum, concavum, cum ungue columnæ basi connatum, eodem continuum; limbo elongato, spatulato, emarginato, recto, supra columnam fornicato. Anthera denti dorsali columnæ inserta, bilocularis, convexa. Pollinia duo, bipartibilia, ovato-oblonga, cereacea, margini stigmatis ligulato adhærentia. *Ex Blume.*

This appears to differ from *Aporum* in nothing but its reflexed sepals; a character however of no mean importance.

1. MACROSTOMIUM aloefolium. *Blume l. c. t. 37.*

Hab. in arboribus excelsis montis Salak, *Javæ*, florens Junio; *Blume.*

XXXV. MICROCELIA.

Sepala libera, æqualia. Petala conformia, paulò minora. Labellum cum columna articulatum, calcaratum, calcare ventricosum, limbo nano indiviso. Columna minima, libera, cum ovario continua. Anthera stipitata, apice membranacea, bilocularis. Pollinia libera, in loculis solitaria, medio foveata.—Herba fortè aphylla, caulescens, radicibus numerosissimis intricatis. Spicæ plurimæ ascendentes filiformes. Flores minutissimi.

1. *MICROCÆLIA exilis*.

Hab. in *Madagascar* supra arborum ramulos; *Forbes*. (*hab. s. sp. Soc. Hortic. benignè commun.*)

Sepala ovata, obtusa. Calcar ad os constrictum. Pollinia depressa, rotunda, versus medium foveâ magis pellucidâ, quasi reniformia apicibus approximatis.

For my specimens of this very curious little plant I am indebted to the Horticultural Society, who received it from Mr. Forbes. It has the smallest flowers of any Orchideous plant I know; it grows upon the young branches of trees covering them with its numerous thread like roots. It appears to be leafless.

I suspect that *Angræcum aphyllum* of Du Petit Thouars, t. 73. belongs to this genus.

XXXVI. EPICRANTHES.

Epicranthes. *Blume Bijdr.* 306. tabellen 9.

Sepala tria, patentia. Petala multifida, laciniis clavatis carnosus appendiciformibus (nulla ex *Blume*, qui petala processus columnæ appellat). Labellum sepalis brevius, integrum, margine revolutum, glanduloso-tumidum, articulatione irritabili cum columnæ ungue incurvo unita. Columna simplex. Anthera semibilocularis. Pollinia 2, ovata.—Herba epiphyta, caulibus scandentibus vaginatis pseudo-bulbiferis; pseudo-bulbis tetragonis monophyllis. Folia ovalia suprâ convexa, subtus concava. Pedunculi uniflori, e caule ad basin foliorum orti.

Char. ex *Blume*.

1. *EPICRANTHES Javanica*. *Blume l. c.*

Hab. in altis montibus *Javæ* supra arbores, florens Septembri et Decembri; *Blume*.

XXXVII. MONOMERIA.

Sepala ringentia, inæqualia, lateralibus a supremo valdè distantibus, intervallo denticulato, basi invicem et cum pede columnæ connatis intus barbatis. Petala 0. Labellum cum pede columnæ articulatum, incumbens, ovatum, trilobum, lamellis 4 parallelis in disco, lobis lateralibus antrorsum falcatis apice bidentatis. Columna basi longè producta, semiteres, apice cornubus duobus minutis. Anthera cristata, unilocularis. Pollinia 4, in massam singulam cohærentia.—Herba rhizomate crasso repente, pseudo-bulbos gerente. Folia solitaria, coriacea, avenia. Racemi radicales multiflori.

Note. This is the only known genus of Orchideæ in which the petals are abortive. Nothing is found in their room, but there is a wide tooth-letted interval between the upper and lower sepals.

1. *MONOMERIA barbata*. *Lindley in Wallich. Cat.* no. 1978.

Hab. in *Napalia*, *Wallich*. (*hab. s. sp. e Museo Angl. Ind.*)

Pseudo-bulbi ovati. Folia longissimè petiolata, pedalia, erecta. Racemus

foliis brevior. Scapus pallidus, squamulis quibusdam, maculatus. Flores pallidi, purpureo-maculati. Labellum lutescens. Pes columnæ dense purpureo punctata.

XXXVIII. STENOGLOSSUM.

Stenoglossum. Kunth in Humb. et Bonpl. Nov. gen. et sp. pl. 1.356.

Sepala clausa : lateralibus cum basi columnæ connatis, æquilateris. Petala minora. Labellum posticum, cum columna in urceolum connatum, limbo spatulato longè pedunculato. Anthera bilocularis. Pollinia 4, libera.—Herba epiphyta, caulescens. Caulis foliosus, simplex. Flores terminales, spicati, pedicellati, bracteati.

Character ex Kunth.

1. STENOGLOSSUM coriophorum. Kunth.

Stenoglossum coriophorum. Kunth l. c. t. 87. Synops. 1.340.

Stenoglossum corynephorum. Spreng. syst. 3.742.

Hab. in Andibus Regni Novo-Granatensis, alt. 1080 hex. florens Novembri ; Humboldt et Bonpland.

XXXIX. DIGLYPHOSA.

Diglyphosa. Blume Bijdr. 336. tabellen 60.

Sepala erecta, subringentia. Petala latiora. Labellum concavum, intus membranaceo-cristatum, ungui columnæ elasticè adhærens, ascendens ; limbo indiviso patente. Columna supernè incurva. Anthera convexa, anticè bifida, bilocularis. Pollinia 2, angulata, compressa.—Herba terrestris ebulbis. Radices (Rhizoma) repentes, fibrosæ. Caulis teres, subcarnosus, apice monophyllus. Folium membranaceum, nervosum, elliptico-lanceolatum, glabrum. Pedunculus radicalis, basi vaginatus, spicato-multiflorus. Flores pedicellati, bracteati.

Character ex Blume.

1. DIGLYPHOSA latifolia. Blume l. c.

Hab. in umbrosis montanis Meggamedong, insulæ Javæ, florens Aprili ; Blume.

XL. MYCARANTHES.

Mycarantes. Blume Bijdr. p. 352. t. 57.

Sepala clausa v. patentia, æqualia v. inæqualia, extùs lanata, lateralibus pedi columnæ adnatis sed nullo modo obliquis. Petala minora. Labellum cum basi producta columnæ articulatum, trilobum, cucullatum, disco cristato v. appendiculato. Columna nana, basi longè producta marginibus alatis introflexis. Anthera terminalis, bilocularis, loculis quadrilocellatis. Pollinia 8, parva, ovata.—Herbæ in arboribus, v. rupibus crescentes, caulescentes. Folia carnosa, v. coriacea, non plicata. Racemi terminales multiflori.

This genus differs from *Eria* in nothing but its dwarf column the margins of which are inflexed, and the want of obliquity in the lateral sepals ; but as its habit is peculiar I do not hesitate to adopt it.

1. MYCARANTHES oblitterata. *Blume.*M. "labelli lobo medio oblitterato, foliis subcoriaceis." *Blume l. c.*Hab. in sylvis montium Salak, Gede, &c. *Javæ*, florens Junio Septembri ;
Blume.2. MYCARANTHES latifolia. *Blume.*M. "labelli lobo medio abbreviato eroso, sepalis exterioribus versus apicem
incrassatis foliis lato-linearibus subcarnosis." *Blume l. c. t. 57.*Hab. in sylvis obscurioribus montis Salak, *Javæ*, florens Julio Augusto ;
Blume.3. MYCARANTHES lobata. *Blume.*M. "labelli lobo medio dilatato undulato sub-bilobo, foliis rigidis." *Bl. l. c.*Hab. in montosis Salak, Pantjar, Seribu, &c. *Javæ*, florens per ferè totum
annum ; Blume.4. MYCARANTHES stricta. *Lindl. in Wall. Cat. no. 1970.*M. caulibus teretibus, spicâ secundâ densâ multiflorâ, labello scrotiformi
per medium calloso, perianthio lanato clauso, columnæ marginibus alatis
introflexis, foliis 1-2 lineari-lanceolatis sessilibus.Octomeria secunda. *Wallich. Mss.*Eria stricta. *Lindl. Coll. t. 41. B.*Hab. in *Napalia* supra arbores et rupes, *Wallich. (hab. s. sp. e Museo Anglo-Indico.)*

Flores extus glauci, intus pallidè ochroleuci.

XLI. PHREATIA.

Dendrolirii pars. Blume.

Sepala conniventia, subæqualia : lateralibus cum basi producta columnæ
connatis. Petala minora conformia. Labellum integrum, carnosum,
cum pede columnæ articulatum. Columna nana, clinandrio altè im-
merso : margine membranaceo subintegro. Anthera intra clinandrium
inclusa, bilocularis ; oculis obsoletè 4-foveatis. Pollinia 8, sphærica,
materie viscidâ cohærentia. — Herbæ cæspitosæ, epiphytæ, pseudo-bul-
bosæ. Folia non plicata. Scapi radicales.

Obs. Character ad *P. elegantem* solam confectus ; species *Blumianæ* ob
habitum huc relatæ.

1. PHREATIA elegans.

P. foliis linearibus coriaceis apice obliquis emarginatis, scapis gracilibus
foliis longioribus subnutantibus, spicis multifloris, labello ovato obtuso
intus piloso.Hab. super arbores in sylvis montosis pagi Peradeniæ, *Zeylonæ* ; *Macrae.*
(*hab. s. sp. et ic. pict.*)An *Phr. laxiflora* eadem ?

Sepala conniventia acuta : lateralibus majoribus basi paululum v. vix ob-
liquis ; contextu valdè laxo cellulari. Petala conformia, paulò minora,
acuta. Labellum indivisum, basi productæ columnæ affixum, ovatum,
carnosum. Flores albi.

2. PHREATIA retusa.

P. "bulbis ovato-globosis 2-3-phyllis, foliis lineari-lanceolatis obliquè retusis subcarnosis, spicis brevibus densifloris." *Blume*.

Dendrolirium retusum. Blume p. 351.

Hab. in altis montis Salak, *Javæ*, florens Julio Septembri; *Blume*.

Planta pusilla.

3. PHREATIA laxiflora.

P. "foliis membranaceis linearibus apice inæquali-obtusis, spicis folio valdè longioribus strictis laxifloris, labelli limbo dilatato concavo." *Blume*.

Dendrolirium laxiflorum. Blume p. 350.

Hab. prope catarractas fluvii Tjapus ad montem Salak, *Javæ*, florens Septembri Octobri; *Blume*.

4. PHREATIA densiflora.

P. "foliis membranaceis lato-linearibus inæquali-obtusis, spicis elongatis flexuosis densifloris, labello limbo ovato concavo." *Blume*.

Dendrolirium densiflorum. Blume p. 350.

Hab. prope catarractas fluvii Tjapus ad montem Salak, *Javæ*, florens Augusto Novembri; *Blume*.

5. PHREATIA pusilla.

P. "foliis membranaceis angusto-linearibus, spicis erectiusculis folio æqualibus, labelli limbo rotundato patente." *Blume*.

Dendrolirium pusillum. Blume p. 350. tab. 68.

Hab. in montosis Pantjar Provinciæ Buitenzorg, *Javæ*, florens Junio Augusto; *Blume*.

6. PHREATIA secunda.

P. "foliis carnosius angusto-linearibus, spicis nutantibus secundis folio subæqualibus, labelli limbo rotundato patente." *Blume*.

Dendrolirium secundum. Blume p. 350.

Hab. in montosis Pantjar Provinciæ Buitenzorg, *Javæ*, florens Junio Augusto; *Blume*.

"Planta pusilla *Dendrolirio* pusillo affinis, sed characteribus indicatis sat diversa." *Bl.*

7. PHREATIA coriacea.

P. "foliis coriaceis linearibus obliquè retusis, spicis erectis folio longioribus laxifloris, labelli limbo intus pubente dilatato concavo." *Blume*.

Dendrolirium coriaceum. Blume p. 351.

Hab. in sylvis montis Salak, *Javæ*, florens Augusto; *Blume*.

Affinis *P. laxifloræ*.

XLII. ERIA.

Eria. Lindl. in *Bot. Reg.* 904.—*Dendrolirium*. Blume *Bijdr.* p. 343. t. 69.—*Pinalia*.
Lindl. *orch. scel.* n. 71. p. 23. c. ic.

Sepala semipatentia, v. clausa, inæqualia, extus lanata v. glabra, lateralibus basi valdè obliquis cum pede columnæ connatis calcar æmulantibus. Petala sepalo superiori æqualia v. minora. Labellum cum basi producta columnæ articulatum, trilobum, rarè subintegrum, cucullatum, disco calloso, v. cristato. Columna basi longè producta. Anthera terminalis, bilocularis, loculis obsoletè 4-locellatis. Pollinia 8, nunc omninò libera, nunc materie elasticâ glandulam mentiente cohærentia.—Herbæ in arboribus crescentes; caulibus carnosiss, vaginatis, cicatricibus foliorum notatis. Folia sæpiùs plicata. Racemi simplices, erecti, bracteis sæpiùs dilatatis. Flores nunc conspicui.

This genus is essentially distinct from *Octomeria*, in having the lateral sepals very oblique and connected with the elongated base of a short column, of which the foot is much longer than the column itself; and also in habit. *Eria* is a genuine genus of *Dendrobieæ* with the column incumbent upon the ovary; *Octomeria* on the contrary must be considered, notwithstanding the slight elongation of the base of its column, to belong to the genera characterized by the column being continuous with the ovary. In *Octomeria* the sepals are of equal size; in *Eria* the lateral sepals are much larger than the upper one.

1. *ERIA* paniculata. Lindl. l. c. no. 1971.

E. foliis lineari-lanceolatis acuminatis subtus glaucis, caulibus teretibus pendulis elongatis, racemis terminalibus aggregatis cylindraceis multifloris, sepalis lanatis ovatis obtusis petalisque minoribus guttatis, labello trilobo basi apiceque calloso: lobis guttatis: intermedio truncato. Lindley in *Wall. Plant. Asiat. Rar.* vol. 1. p. 32. t. 36.

Hab. in Pundua, *Indiæ Orientalis*, Wallich. (v. s. sp. in herb. *Anglo-Indico*.)

2. *ERIA* flava. Lindl. in *Wall. Cat.* no. 1973.

E. foliis lanceolatis distichis basi dilatatis, caulibus ovalibus, sepalis densè lanatis ovatis, petalis minoribus glabris, labelli trilobi lobo medio recurvo crenulato apiculato, racemo erecto multifloro, bracteis ovato-lanceolatis ovarii longitudine.

Eria pubescens. Lindl. in *B. Reg.* 904.

Dendrobium pubescens. Hook. *Exot. Fl.* t. 124.

Octomeria flava. Wall.

Octomeria pubescens. Spreng. *syst.* 4. 310.

Hab. in *Napalia*, Wallich. (hab. s. sp. e *Museo Anglo-Indico*.)

Flores viridi-flavescentes odorati, labello postico. Bracteæ membranaceæ fusæ.

3. *ERIA* bicolor.

E. foliis pluribus lanceolatis, caulibus elongatis attenuatis, sepalis petalisque æqualibus glabris ovatis patentibus, labelli trilobi lobo medio ovato acuto, racemo stricto multifloro foliis brevior, bracteis lanceolatis abbreviatis, rachi pubescente.

Hab. ad Maturatam, *Zeylonæ*, supra arbores, *Macrae*. (hab. s. sp. et ic. pict.)

Caulis vaginis fuscis densè vestitus. Rachis roseo-purpurea. Flores can-

May, 1830.

didissimi. Pollinia non vidi. Labellum medio lineis tribus elevatis sed cristâ nullâ.

4. *ERIA flavescens*.

E. "bulbis oblongis subcylindræis, apice 3-4-phyllis, foliis lanceolatis nervosis, spicis intrafoliaceis erectis stellato-pubentibus, bracteis coriaceis margine revolutis, labelli limbo intus discoideo-viscoso: lobo medio ovato obtuso." *Blume*.

Dendrolirium flavescens. *Blume p. 344. t. 69.*

Hab. in cortice arborum ad montes Salak, Tjerimai, &c. *Javæ*, florens Maio Octobri; *Blume*.

"Bracteæ flavescentes."

Huic et 5 sequentibus Labellum ungue columnæ majus, intus callosum v. crispatum, limbo subtrilobo. Bracteæ magnæ coloratæ. Flores speciosi rariùs minuti. *ex Blume*.

5. *ERIA rugosa*.

E. "bulbis oblongis triquetris apice 1-2-phyllis, foliis oblongo-lanceolatis nervosis, spicis erectis sepalisque exterioribus tenuiter fusco-tomentosis, bracteis membranaceis, labello intus membranaceo-crispato, limbi lobo medio ovato acuto." *Blume*.

Dendrolirium rugosum. *Blume p. 345.*

Hab. in sylvis umbrosis montis Salak, *Javæ*, florens Septembri Octobri; *Blume*.

6. *ERIA ornata*.

E. "bulbis ovalibus compressiusculis sub-3-phyllis, foliis oblongo-lanceolatis rigidis nervosis, spicâ radicali vaginatâ sepalisque exterioribus fusco-tomentosis, bracteis coriaceis margine recurvis, labello intus crispato-cristato, limbi lobo medio acuminato." *Blume*.

Dendrolirium ornatum. *Blume p. 345.*

Hab. in sylvis altioribus Provinciarum Buitenzorg et Bantam, *Javæ*, florens Januario Martio; *Blume*.

"Bracteæ rubræ, demum aurantiacæ. Species pulcherrima."

7. *ERIA albido-tomentosa*.

E. "bulbis ovalibus compressis sub-3-phyllis, foliis lanceolatis rigidis, spicâ subradicali sepalisque exterioribus albido-tomentosis, bracteis membranaceis, labello intus crispato, limbi lobo medio acuto." *Blume*.

Dendrolirium albido-tomentosum. *Blume p. 345.*

Hab. ad arbores in vallibus Lowong Salassie Provinciæ Tjanjör, *Javæ*, florens Junio Julio; *Blume*.

8. *ERIA Hyacinthoides*.

E. "bulbis ovatis compressiusculis apice 2-phyllis, foliis lanceolatis basi carinatis coriaceis nervosis, spicis lateralibus erectis sepalisque nudis, bracteis minutis, labello intus calloso verrucoso: limbi lobo medio obtuso." *Blume*.

Dendrolirium hyacinthoides. *Blume p. 346.*

Hab. ad arborum truncos in declivitate occidentali montis Salak, *Javæ*, florens Septembri; *Blume*.

"Flores candidi."

9. *ERIA* bicristata.

E. "bulbis oblongis subcylindraceis vaginatis apice sub-2-phyllis; foliis lineari-lanceolatis coriaceis; spicâ laterali pauciflorâ sepalisque exterioribus tenuissimè sericeo-tomentosis, bracteis minutis, labello intùs lineis 2 longitudinalibus hirsutis: limbi lobo medio incrassato." *Blume*.

Dendrolirium bicristatum. Blume p. 346.

Hab. in umbrosis montis Salak ad arbores *Javæ*, florens Januario; *Blume*.

"Flores albidì, ad basin labelli dilutè purpurei."

10. *ERIA* rosea. *Lindley*.

E. foliis coriaceis oblongo-lanceolatis solitariis in pseudo-bulbis costatis ovatis, sepalis glabris carinatis petalisque oblongis obtusis, labelli trilobi ungue bicostato laminâ tricostatâ, spicâ axillari pauciflorâ, bracteis foliaceis floribus longioribus.

Eria rosea. Lindley in B. Reg. 978.

Octomeria rosea. Spreng. syst. 4.310.

Hab. in *China*. (v. v. cult.)

Surculi juniores e squamis magnis viridibus distichis mox ad margines emarcidis et pseudo-bulbum formantibus. Flores albo-rosei. Labelli cristæ luteo-aurantiacæ.

11. *ERIA* stellata. *Lindley*.

E. foliis lanceolatis carnosis 5-costatis, sepalis pubescentibus petalisque lineari-lanceolatis acuminatis, labelli tricostati lobis lateralibus obtusis intermedio acuminato, scapo elongato radicali multifloro ovarioque pube ferrugineâ lanatis.

? *Dendrobium javanicum. Swartz in act. Holm. 1800. p. 247. Willd. n. 23.*

Eria stellata. Lindl. in B. Reg. t. 904.

Octomeria stellata. Spreng. syst. 4.310.

Hab. Colitur in Hortis Angliæ ex *Java*, ut aiunt. (v. v. cult.)

12. *ERIA* alba.

E. foliis distichis basi vaginantibus plicatis, pseudo-bulbis ovatis cartilagineis multicostatis, sepalis petalisque oblongis subæqualibus glabriusculis, labelli trilobi medio tricallosi lobo intermedio ovato obtuso, racemis geminis terminalibus foliis æqualibus, bracteis subulatis.

Octomeria alba. Wall.

Hab. in monte Sheopore, *Napaliæ*, supra arbores crescens, *Wallich*. (hab. s. sp. communic. cl. *Rudge*.)

Flores albi mellis odorem spirantes. Labellum flavescens lobis lateralibus apice roseis; ex *Wallichio*.

13. *ERIA* excavata. *Lindl. l. c. no. 1974.*

E. foliis lanceolatis binis plicatis, caulibus oblongis obtusis sulcatis, sepalis basi pilosis petalisque oblongis obtusis, labelli trilobi tricarinati lobo medio emarginato, racemis lateralibus erectis foliis brevioribus, bracteis obovatis recurvis ovario multò brevioribus.

Octomeria excavata. Wall.

Hab. rariùs supra arbores montis Sheopore, *Napaliæ*, *Wallich*. (hab. s. sp. e *Museo Anglo-Indico*.)

Tota planta intensè viridi-cærulea. Rachis rosea pubescens. Bracteæ

pallidè virides, striatæ. Flores mediocres, (flavescentes, sepalis petalisque tenuissimè diaphanis, striis dilutissimis roseis notatis *ex Wallichio*). Labellum lobo medio olivaceo-purpureo. Columna teres stigmatè altè excavato, labio superiore ovato, inferiore maximo porrecto 4-dentato.

14. *ERIA pumila*. *Lindl. l. c. no. 1972.*

E. foliis geminis lineari-lanceolatis plicatis caulibus teretibus erectis subæqualibus, sepalis petalisque acuminatis basi subpilosus, labelli trilobi ecallosi lobis lateralibus subulatis patentibus: intermedio ovato, spicis capitatis lateralibus subsessilibus.

Hab. in Pundua, *Indiæ Orientalis*, *Wallich.* (*hab. s. sp. e Museo Anglo-Indico.*)

Ovarium pubescens. Sepala inferiora basi valdè producta. Vaginæ caulium latæ membranaceæ.

15. *ERIA obesa*. *Lindl. l. c. no. 1976.*

E. foliis, caulibus crassis teretibus, sepalis petalisque obtusis subglabris, labelli trilobi ecallosi lobis lateralibus rotundatis: intermedio cuneato retuso, racemis paucifloris, bracteis lineari-lanceolatis pedicello capsularum longissimarum vix æqualibus.

Hab. ad Attran *Martabaniæ*, *Wallich.* (*hab. s. sp. e Museo Anglo-Indico.*)

Exemplaria quædam vidi foliis destituta facie *E. excavatæ pumilæ* sed excavationibus nullis. Pedunculi 3-4-flori, ovariis semimaturis valdè elongatis. Pollinia defuere. Species distincta, sed recognoscenda.

16. *ERIA erecta*.

E. "bulbis cauliformibus supernè compressiusculis, foliis lanceolatis acutis, spicis laxifloris oppositifoliis erecto-patentibus." *Blume.*

Dendrolirium erectum. *Blume p. 348.*

Hab. in montanis Gede et Salak, *Javæ*, florens Martio Septembri; *Blume.*

"Flores mediocres, odorati. *Variat* caulibus hinc planis inde teretibus, spicis folio duplò brevioribus, in altioribus Salak." *Blume.*

Obs. Huic et speciebus tribus sequentibus labellum ungue columnæ majus, infernè processibus duobus inflexis instructum, pseudo-bulbi elongati, cylindranei, quasi cauliformes, infernè vaginati apice foliis instructi, spicæ oppositifoliæ, bracteæ minutæ, flores parvi; *ex Blume.*

17. *ERIA abbreviata*.

E. "bulbis cauliformibus teretibus, foliis lanceolatis acutis lucidis, spicis oppositifoliis brevissimis." *Blume.*

Dendrolirium abbreviatum. *Blume p. 348.*

Hab. in altis montis Salak, *Javæ*, florens Junio; *Blume.*

18. *ERIA multiflora*.

E. "bulbis cauliformibus teretibus, foliis lineari-lanceolatis acutis, spicis densifloris oppositifoliis nutantibus folio dimidio brevioribus." *Blume.*

Dendrolirium multiflorum. *Blume p. 349.*

Hab. in sylvis obscurioribus montis Salak, *Javæ*, florens Junio, &c. *Blume.*

19. *ERIA micrantha*.

E. "bulbis cauliformibus teretibus, foliis lineari-lanceolatis obtusiusculis, spicis densifloris oppositifoliis cernuis folio æqualibus."

Dendrolirium micranthum. *Blume p. 349.*

Hab. in sylvis obscurioribus montis Salak, *Javæ*, florens Junio; *Blume.*

“An varietas *E. multifloræ*, differt tantum foliis et floribus valdè minoribus.”—An *Phreatia*?

20. *ERIA robusta.*

E. “bulbis compressis vaginatis apice 2-phyllis, foliis lato-linearibus obtusiusculis rigidissimis, spicâ infernè vaginatâ tomentosâ longitudine foliorum.” *Blume.*

Dendrolirium robustum. *Blume p. 347.*

Hab. in montanis Provinciarum Buitenzorg et Tjanjor supra arbores, *Javæ*, florens Junio Septembri; *Blume.*

“Flores flavescentes vel purpurascentes.”

Huic et 3 sequentibus labellum ungue columnæ brevius, infernè cucullatum, limbo indiviso, bracteæ minutæ, flores parvi, sepala in omnibus ferè tomentosa, ex *Blume.*

21. *ERIA ebulbis.*

E. “foliis geminatis linearibus obtusis rigidis basi ferè ebulbis, spicis tomentosis folio dimidio brevioribus.” *Blume.*

Dendrolirium ebulbe. *Blume p. 347.*

Hab. ad montem Salak, *Javæ*, florens Junio, &c.; *Blume.*

“Flores internè purpurascentes.”

22. *ERIA acuminata.*

E. “bulbis oblongis compressis 5-7-phyllis, foliis lineari-lanceolatis acuminatissimis rigidis, spicâ subtomentosâ longitudine foliorum.” *Blume.*

Dendrolirium acuminatum. *Blume p. 347. t. 69.*

Hab. in altis montium Gede et Salak ad originem fluviorum supra arbores, *Javæ*, florens Maio Julio; *Blume.*

“Flores intùs purpurei.”

23. *ERIA sulcata.*

E. “bulbis ovatis sulcatis sub-2-phyllis, foliis lineari-lanceolatis coriaceis, spicis erectis supernè sulcatis nudis folio longioribus.” *Blume.*

Dendrolirium sulcatum. *Blume p. 347.*

Hab. in sylvis humidis ad montem Gede, *Javæ*, florens Maio Junio; *Blume.*

24. *ERIA appendiculata.*

E. “bulbis ovato-oblongis vaginatis 3-4-phyllis, foliis lanceolatis coriaceis obtusis, spicâ arachnoideo-tomentosâ longitudine foliorum.” *Blume.*

Dendrolirium appendiculatum. *Blume p. 352. t. 69.*

Hab. in arboribus et ad ripas montium Salak, Gede, Burangrang, &c. *Javæ*, florens Maio Septembri; *Blume.*

Generis valdè dubii. Fortè *Vandea* quædam.

§ PINALIA.

Stigma prominens. Columna teres, clavata. Anthera dorsalis. Pollinia apice materie viscidâ cohærentia.

I formerly thought that the characters by which the following species is distinguished were of sufficient importance to justify me in separating it from *Eria* as a particular genus, for which I accordingly adopted Dr. Hamilton's manuscript name of *Pinalia*. Subsequent experience has however led me to doubt the value of these characters unconnected with other differences, and I have accordingly reduced the genus to a subgenus of *Eria*. I may however observe that the degree of developement of the viscid matter by which the pollen masses cohere is greater in *Pinalia* than in any other Malaxideous plant with which I am acquainted, and that it exhibits an instance of a near approach to the cartilaginous gland of *Vandææ*.

25. *ERIA convallarioides. Lindl. l. c. no. 1975.*

E. foliis oblongo-lanceolatis distichis plicatis, caulibus compressis teretibus striatis, sepalis petalisque ovatis inæqualibus extûs villosis, labello unguiculato ovato apice tridentato, spicis axillaribus oblongis densissimis pedunculatis foliis multò brevioribus, bracteis subulatis.

Octomeria spicata. Don. Prodr. 31.

Pinalia. Lindl. orch. scel. n. 71. p. 23. c. ic.

Pinalia alba. Hamilton Mss. apud Don. Prodr.

Octomeria convallarioides. Wallich in ic. Bibl. Anglo-Indicæ n. 1141.

Hab. supra arbores Napaliæ ad Toka, et alibi, florens Julio, Wallich. (hab. s. sp. e Museo Anglo-Indico.)

Flores albi densissimi, magnitudine ferè Convallariæ majalis inodori; ex Wallichio. Labellum posticum. Capsulæ oblongæ, utrinque obtusæ, apteræ.

XLIII. APORUM.

Aporum. Blume Bijdr. p. 334. t. 39.

Sepala carnosâ erecta, lateralibus majoribus obliquis cum basi producta columnæ connatis. Petala sepalo supremo minora. Labellum cum pede columnæ articulatum, posticum, indivisum v. trilobum: limbo cristato calloso v. nudo. Columna semiteres, basi longè producta. Anthera sessilis, bilocularis, nunc apice membranacea. Pollinia 4, per paria collateralia.—Herbæ epiphytæ, caulescentes. Folia disticha, equitantia, ancipitia. Flores subsolitarii, e paleis membranaceis erumpentes, sæpiùs herbacei coloris.

Different as the plants of this genus are from *Dendrobium* in appearance, it is impossible to distinguish them by characters derived from the fructification; the distichous equitant leaves however offer an excellent mark of distinction.

1. *APORUM indivisum. Blume.*

A. foliis ovatis carnosis obtusis, floribus solitariis terminalibus, sepalis carnosis: lateralibus ovatis obtusis patentibus supremo petalisque multò majoribus, labello postico oblongo cristato indiviso carnosâ, caulibus erectis.

Aporum indivisum. Blume Bijdr. p. 334. t. 39. Wall. Cat. no. 2018.

Hab. in montibus Seribu, *Javæ*, florens Februario Julio; Blume; ad *Singapore*, *Wallich*. (habeo s. sp. *defloratum* e Museo Anglo-Indico, et v. ic. pict.) Flores ex icone in Museo Anglo-Indico lutescentes extùs obscurè purpurei, quam *A. ancipitis* duplò majores.

2. *APORUM* incrassatum. *Blume*.

A. "labelli limbo rotundato incrassato revoluto." *Blume* p. 334.

Hab. ad montem Salak, *Javæ*, florens Octobri; Blume.

3. *APORUM* lobatum. *Blume*.

A. "labelli limbo semitrifido, lobo medio rotundato crenulato." *Blume Bijdr.* p. 334.

Hab. in montanis Provinciæ Buitenzorg, *Javæ*, florens toto anno; Blume.

4. *APORUM* anceps. *Lindl. l. c. no. 2020.*

A. foliis scalpelliformibus carnosissimis acutis, floribus solitariis geminisve, sepalis carnosissimis: lateralibus ovatis patentibus supremo petalisque multò majoribus, labello postico unguiculato ecalloso inappendiculato cuneato emarginato crenulato, caulibus pendulis.

Dendrobium anceps. Swartz act. Holm. 1800. p. 246. Willd. no. 18. Bot. Reg. t. 1239.

Hab. in *India Orientali* supra arbores præsertim ad æstuaria fluminum, *Wallich*. (v. v. cult. et habeo s. sp. e Museo Anglo-Indico.)

Flores virides, labello paululum colorato.

5. *APORUM* Serra. *Lindl. l. c. no. 2021.*

A. foliis scalpelliformibus acutis carnosissimis, floribus; caulibus basi tantum foliosis apice aphyllis teretibus subramosis floriferis.

? *Dendrobium acinaciforme. Roxb. Mss.*

? *Herba supplex quinta. Rumphius 6. t. 51. f. 2.*

Hab. ad *Singapore* et *Penang*, *Wallich*. (habeo s. sp. *defloratum* e Museo Anglo-Indico.)

Flores, quos non vidi, e paleis membranaceis imbricatis brevissimis erumpunt ad partem aphyllam caulis densè fasciculatis.

I suspect that the figure above quoted from Rumphius may possibly be intended for this. It is however too uncertain to be quoted with confidence. The leaves are much narrower than in *A. Serra*; and the flowers of the latter have not been seen by me.

XLIV. OXYSTOPHYLLUM.

Oxystophyllum. Blume Bijdr. p. 335. t. 38.

Sepala erecta, lateralibus majoribus obliquis cum basi producta columnæ connatis. Petala sepalo supremo subæqualia. Labellum cum pede columnæ articulatum, indivisum: limbo carnosissimo, subtùs tuberculato. Columna semiteres, basi longè producta, clinandrio marginato. Anthera denti dorsali columnæ insidens, bilocularis, convexa. Pollinia 2 non partibilia.—Herbæ epiphytæ, caulescentes. Folia equitantia, ensiformia, basi vaginata, rigida v. carnosissima. Flores subcapitati, intra-foliacei, sessiles, paleis cincti.

Character ex icone et descriptione Blumii.

I know this genus chiefly by Blume's figure and description. It seems to differ from *Aporum* in nothing but having two pollen masses instead of four, and in the presence of a tubercle below the tip of the lip on the under side. I have not been able to satisfy myself upon the first point, in examining the flowers of Dr. Wallich's specimens of *O. carnosum*; but I presume Dr. Blume's observations, made upon fresh flowers are accurate as to this.

1. *OXYSTOPHYLLUM carnosum*. Blume.

O. foliis lineari-lanceolatis acuminatis subfalcatis, racemis lateralibus paleis imbricatis distichis vaginatis, labello cuneato supra tomentoso: tuberculo apicis minuto, petalis erosis.

Herba supplex prima. Rumphius 6. t. 50. f. 2.

O. carnosum. Blume l. c. t. 38.

Aporum concinnum. Lindl. in Wallich. Cat. Herb. Ind. no. 2019.

Hab. in sylvis montium *Javæ*, florens Julio, &c. Blume; Amboyna, Rumph. Wallich. (habeo s. sp. e Museo Anglo-Indico.)

Flores parvi coriacei. Sepala in sicco acuta, in vivo obtusiora (ex Blumii icone). Herba erecta, cæspitosa, palmaris, caulibus simplicibus, ad basin usque foliosis.

I originally considered this a species of *Aporum*, not having been able to procure any flowers; the examination of one or two withered blossoms has since enabled me to ascertain that it is the *Oxystophyllum carnosum* of Blume. Rumphius's figure is characteristic.

2. *OXYSTOPHYLLUM rigidum*. Blume.

O. "foliis strictis coriaceis, labelli tuberculo obtuso." Blume p. 336.

Hab. in sylvis montium Salak, Pantjar, &c. *Javæ*, florens toto anno; Blume.

3. *OXYSTOPHYLLUM excavatum*. Blume.

O. "foliis rectis subcoriaceis, labelli limbo intus excavato extus convexo." Blume l. c.

Hab. in sylvis altioribus montis Salak, *Javæ*, florens Decembri; Blume.

XLV. POLYSTACHYA.

Polystachya. Hooker Exot. Fl. 103.

Sepala erecta, acuta: lateralibus majoribus cum basi producta columnæ connatis. Petala minora. Labellum sessile, cum basi producta columnæ articulatum, trilobum. Columna semiteres, brevis. Anthera bilocularis. Pollinia 4, collateralia, æqualia, per paria cohærentia.—Herbæ epiphytæ caulescentes nunc pseudo-bulbosæ. Folia leviter nervosa. Flores paniculati, parvi, alabastris trigonis.

When I published the type of this genus in my *Collectanea Botanica*, in 1821, I had seen only imperfect pollen masses; one lying in each cell of the anther. Subsequently Dr. Hooker, in founding the genus in his *Exotic Flora*, represented them adhering to a common pedicel and gland, 4 in number, and not lying side by side, but upon each other. Finally M. Achille Richard, in his account of the Mauritius Orchideous plants, states the number of pollen masses to be 2, without any stalk or gland. All these observations are however inaccurate, as I have recently satisfied myself

from an examination of good specimens sent from Ceylon by Mr. Macrae. The pollen masses are in reality 4 in number and lie loosely side by side, two in each cell of the anther.

1. *POLYSTACHYA luteola.* Hooker.

P. spicâ paniculatâ, foliis oblongo-lanceolatis multinerviis scapo brevioribus, floribus ovariisque glabris.

Epidendrum minutum. Aubl. 2. 824.

Cranichis luteola. Swartz *Fl. Ind. Occ.* 3. 1433.

Epidendrum parviflorum. Pavon. in *Herb. Lambert.*

Dendrobium polystachyon. Swartz *act. Holm.* 1800. p. 247. Willd. no. 21. Thouars *orch. Afr. t.* 85. Lindl. *Coll. Bot. t.* . A. Rich. *orch. Maur.* 59.

Polystachya luteola. Hooker *Exot. Fl. t.* 103. Spreng. *l. c.*

Polystachya Mauritiana. Spreng. *syst.* 3. 742.

Hab. in Mexico, Pavon; insulis Caribæis, Swartz; Mauritio, Thouars; Zeylona, Macrae. (habeo s. sp. et v. v. cult.)

Variat floribus luteo-viridibus (occidentalis) et luteo-purpureis (orientalis).

2. *POLYSTACHYA puberula.* Lindley.

P. spicâ paniculatâ thyrsiformi, foliis lanceolatis septem-nerviis scapo longioribus, floribus ovariisque pubescentibus, pseudo-bulbis ovatis.
Lindley in *Bot. Reg. t.* 851.

Hab. in Sierra Leone. (v. v. cult.)

3. *POLYSTACHYA affinis.*

P. spicâ simplici cylindraceâ, foliis ovalibus versus basin attenuatis 9-nerviis scapi longitudine, floribus ovariisque pilosis, pseudo-bulbis glabris depressis.

Hab. in Sierra Leone. (habeo s. sp. ex *Herb. Hort. Soc.*)

An *P. puberulæ* varietas?

4. *POLYSTACHYA fusiformis.* Lindley.

P. caulibus articulatis fusiformibus carnosiss, foliis lineari-oblongis oblique emarginatis, paniculis terminalibus foliis brevioribus, floribus glabris.

Dendrobium fusiforme. Thouars *orch. Afr. t.* 86.

Polystachya fusiformis. Lindley in *Bot. Reg. p.* 851.

Hab. in Borbonia, Thouars.

I refer this and the succeeding to *Polystachya* chiefly on account of their habit. It is however by no means clear to me what they really are. M. Du Petit Thouars figures 2 pollen masses, in this, and he, and M. Ach. Richard both find two in *P. cultrata*. There is also some peculiarity in the attachment of the pollen masses to the stigma which requires more investigation.

5. *POLYSTACHYA cultrata.* Lindley.

P. spicâ compositâ pauciflorâ, folio solitario basi auriculato oblongo cultriformi, floribus ovariisque glabris.

Dendrobium cultriforme; Thouars *orch. Afr. t.* 87. Ach. Rich. *orch. Maur.* 59.

Polystachya cultrata. Lindley in *Bot. Reg.* 851.

Hab. in Mauritio, Thouars.

Pollinia 2, ex Thouars et Ach. Rich.

XLVI. METACHILUM.

Sepala conniventia subæquilonga: lateralibus cum basi elongata columnæ connatis. Petala nana. Labellum ventricosum, integrum, cum margine pedis columnæ connatum, intus appendiculatum. Columna stigmatè prominente apice membranaceo bilobo. Anthera bilocularis, dorsalis. Pollen ignotum.—Herbæ epiphytæ, caulibus pendulis teretibus distichè foliosis. Flores parvi, laterales et terminales, spicati, capsulis reflexis.

A very remarkable genus nearly related to *Dendrobium* with which it agrees in habit, but from which the cohesion of the labellum with the margin of the column sufficiently distinguishes it. Its pollen is unknown.

1. *METACHILUM cyathiferum*. Lindl. in Wall. Cat. no. 2022.

Hab. ad Singapore, Wallich. (hab. s. sp. e Museo Anglo-Indico.)

Caules penduli. Folia lineari-oblonga, apice obliquè emarginata, disticha; vaginæ laxæ. Sepala lateralalia carinata. Appendix disci labelli cyathiformis.

XLVII. DENDROBIUM.

Dendrobium. Swartz nov. act. Ups. 6. p. 82. t. 5. f. 5. Brown Prodr. 1. 332.—*Onychium*. Blume Bijdr. p. 323. t. 10.—*Pedilonum*. Ib. p. 320. t. 36.—*Sarcostoma*. Ib. p. 339. t. 45.—*Desmotrichum*. Ib. p. 329. t. 35.—*Grastidium*. Ib. p. 333.—*Ceraia*. Loureiro Fl. Cochinch. p. 518.

Sepala membranacea, erecta v. patentia, lateralibus majoribus obliquis cum basi producta columnæ connatis. Petala sepalo supremo sæpius majora, nunc minora, semper membranacea. Labellum cum pede columnæ articulatum v. connatum, semper sessile, indivisum v. trilobum, sæpius membranaceum, nunc appendiculatum. Columna semiteres, basi longè producta. Anthera bilocularis. Pollinia 4, per paria collateralia.—Herbæ epiphytæ, nunc caulescentes, nunc rhizomate repente pseudo-bulbifero. Folia plana, sæpius venosa. Flores solitarii fasciculati, v. racemosi, speciosi.

The most genuine form of *Dendrobium* is no doubt that of having caulescent stems with fascicles or racemes of membranous coloured flowers; but there are insensible gradations from this into rhizomata having false-bulbs, and there are also species in which the flowers are by no means conspicuous and rather fleshy. From *Bolbophyllum* it is distinguished readily by its lip being always sessile, never unguiculate as in that genus, and also in the texture of the same part being almost always of nearly the same consistence as the sepals, while in *Bolbophyllum* it is always remarkably fleshy.

It appears to me that Blume's genera which I have here reduced to *Dendrobium*, have no characters to distinguish them; unless *Sarcostema* be kept apart on account of a slight peculiarity in its pollen masses the nature of which however I do not well understand.

§ I. *Rhizoma pseudo-bulbos gerens apice foliosos. Bolbophyllis proxima.*

1. *DENDROBIUM amplum*. Lindl. in Wall. Cat. no. 2001.

D. rhizomate repente squamoso pseudo-bulbos ovatos squamosos diphylls gerente, foliis ovato-oblongis emarginatis petiolatis, floribus solitariis longipedunculatis axillaribus e bracteis duabus oblongis petaloideis pro-

venientibus, sepalis ovatis acuminatis obtusis petalis angustioribus, labello sessili trilobo medio lamellato: lobis lateralibus abbreviatis rotundatis, intermedio ovato crenulato acuto.

Hab. in *Pundua* et *Napalia*, *Wallich*. (*hab. s. sp. defloratum e Museo Anglo-Indico, et v. ic. pict.*)

Flores straminei, intus guttati, expansi 3 uncias lati: labellum cum basi dilatata columnæ articulatæ, lamellis tribus in medio, quarum intermedia abbreviata; lobo intermedio atropurpureo. Ovarium ferè tres uncias longum, bractea ad basin solitariâ ovatâ. Pedunculus vix unciam excedens bracteis 2 magnis foliaceis albis ex basi ortis tectus.

This beautiful species approaches nearer to the genus *Bolbophyllum* than any with which I am acquainted. Its flowers are not exactly those of *Dendrobium*, the labellum being shaped differently from what is usual in that genus. It is however comprehended within the definition I have given of it, and will by no means enter *Bolbophyllum* with which it is its habit chiefly that accords.

2. *DENDROBIUM muscicola*. *Lindl. l. c. no. 2017.*

D. pseudo-bulbis rotundis cæspitosis induviatis, foliis binis petiolatis lineari-lanceolatis v. sessilibus ovatis apice subemarginatis uncinatis, racemis terminalibus erectis 3-4-floris foliis longioribus, bracteis cuspidatis florum longitudine, sepalis petalisque æqualibus membranaceis linearibus acuminatis conniventibus, labello lanceolato obtuso integerrimo.

? *Dendrobium demissum*. *Don Prodr. 34.*

Hab. in *Napalia*, *Wallich*. (*hab. s. sp. comm. cel. A. B. Lambert.*)

Planta pusilla 3 uncias vix excedens. Pseudo-bulbi parvi, rhizomate inconspicuo. Folia primordialia ovata subsessilia; terminalia persistentia lineari-lanceolata petiolata. Bracteæ oblongæ cuspidatæ membranaceo marginatæ. Labellum sessile.

3. *DENDROBIUM Macraei*.

D. caulibus flexuosis moniliformibus pendulis pseudo-bulbos turbinatos monophyllos gerentibus, foliis oblongis obtusis sessilibus, floribus 2-3 axillaribus fasciculatis subsessilibus, sepalis petalisque subæqualibus ovatis acutis, labello trilobo: lobo medio crenato plicato marginibus recurvis.

Hab. in *Zeylona* supra arbores in sylvis agri *Peradeniæ*, florens Augusto, *Macrae*. (*hab. s. sp. defloratum, et v. ic. pict.*)

Caules longi articulis brevibus *Sertulariæ* ad instar. Pseudo-bulbi lutei teretes apice virides, fusco-striati. Flores albi, versus unguem labelli paululum lutescentes.

This curious species has the habit of the next division, but is covered with clavate spurious bulbs, from the apex of which springs a solitary oblong leaf, producing from its axilla 2 or 3 snow-white flowers. I only know the latter from Mr. Macrae's drawings.

4. *DENDROBIUM braccatum*.

D. pseudo-bulbis sphæricis cæspitosis depressis diphyllis, foliis ovatis submembranaceis, floribus solitariis foliis brevioribus, bractea magnâ petaloideâ ovato-subrotundâ ad basin ovarii brevissimi, sepalis petalis labelloque ovalibus obtusis subæqualibus.

Hab. in *Zeylona* supra saxa cæspites densos formans, florens Novembri, *Macrae*. (*hab. s. sp. et v. ic. pict. alabastra tantum juniora examinavi.*)

Herba pusilla 2-3-uncialis. Pseudo-bulbi fuliginosi lineis ab apice ad basin radiantibus notati, ovato-subrotundi, depressi. Flores albi. Bractea sanguineo-lineata. Labellum basi luteum lineis tribus sanguineis. Sepala lateralibus basi lutea venâ unicâ sanguineâ.

A beautiful little species, of which my description is chiefly taken from a drawing communicated by Mr. Macrae; the specimens I received from him having been unfortunately in young bud only. The great petaloid bractea at the base of the very short ovarium characterizes the species distinctly.

5. *DENDROBIUM angulatum*.

D. "bulbis (monophyllis) angulatis, foliis ovali-lanceolatis subemarginatis, floribus subsolitariis, labelli limbo dilatato setaceo-multifido." *Blume* p. 329. t. 35. sub *Desmotricho*.

Hab. in sylvis altioribus montis Salak, *Javæ*, florens Augusto Octobri; *Blume*.

6. *DENDROBIUM fimbriatum*.

D. "bulbis (monophyllis) ovali-oblongis compressis, foliis oblongo-lanceolatis obtusiusculis, floribus subsolitariis, labelli limbo dilatato bifido plicato." *Blume* p. 329. sub *Desmotricho*.

Hab. in sylvis humilioribus provinciarum occidentalium *Javæ*, florens Junio Septembri; *Blume*.

Variat in sylvis Nusæ Kambangæ insulæ foliis latioribus, florens Novembri; *Blume*.

7. *DENDROBIUM comatum*.

D. "bulbis (monophyllis) oblongis compressiusculis, foliis oblongo-lanceolatis emarginatis, floribus fasciculatis, labelli limbo comato." *Blume* p. 330. sub *Desmotricho*.

Hab. in montanis circa Buitenzorg, *Javæ*, florens Septembri; *Blume*.

8. *DENDROBIUM appendiculatum*.

D. "bulbis (monophyllis) linearibus compressis, foliis oblongo-lanceolatis obtusiusculis, floribus fasciculatis, labelli limbo crispato appendiculo bifido instructo." *Blume* p. 330. sub *Desmotricho*.

Hab. ad montem Pantjar, *Javæ*, florens Junio Augusto; *Blume*.

9. *DENDROBIUM angustifolium*.

D. "bulbis (monophyllis) oblongis pedicellatis, foliis lineari-lanceolatis retusis, floribus solitariis, labello intus discoïdeo-lineato, limbi lobo medio bifido." *Blume* p. 330. sub *Desmotricho*.

Hab. in sylvis montis Salak, *Javæ*, florens Augusto; *Blume*.

Flores flavi. *Bl.*

10. *DENDROBIUM convexum*.

D. "bulbis (monophyllis) ovalibus, foliis ovali-lanceolatis emarginatis suprâ convexis infrâ concavis floribus solitariis, limbi lobo medio bifido." *Blume* p. 331. sub *Desmotricho*.

Hab. in arbores ad pedem montis Salak, *Javæ*, florens Januario; *Blume*.

11. *DENDROBIUM grandiflorum*.

D. "bulbis (monophyllis) ovalibus, foliis ovalibus emarginatis planis, floribus solitariis, labello intùs 3-cristato, limbi lobo medio bilobo undulato." *Blume p. 331. sub Desmotricho.*

Hab. ad montem Salak prope Passir, *Javæ*, florens Julio Augusto; *Blume.*

12. *DENDROBIUM pusillum*.

D. "bulbis (diphyllis) pedicellatis oblongis, foliis ovali-lanceolatis obliquè retusis, floribus solitariis, labelli limbo undulato." *Blume p. 331. t. 35. sub Desmotricho.*

Hab. ad littora Nusæ Kambangæ insulæ *Javæ*, florens Octobri Novembri; *Blume.*

13. *DENDROBIUM triflorum*.

D. "bulbis (diphyllis) ovatis compressis senioribus tetragonis, foliis ovali-lanceolatis obliquè retusis, racemo subtrifloro, labelli limbo ovato." *Blume p. 331. sub Desmotricho.*

Hab. in sylvis Salak, *Javæ*, florens Junio; *Blume.*

14. *DENDROBIUM Cymbidioïdes*.

D. "bulbis (diphyllis) ovato-globosis pentagonis sub-2-phyllis, foliis lanceolatis retusis, racemo 3-7-floro, labello intùs abruptè calloso-lineato, limbi lobo medio ovato-tumido." *Blume p. 332. sub Desmotricho.*

Hab. in sylvis altioribus montium Gede et Salak, *Javæ*, florens Aprili Augusto; *Blume.*

"Sepala lineari-oblonga, obtusa, patentia, pallidè flavescentia; labellum supernè utrinque lineis purpurascens et maculâ sulphuræâ notatum. *Variat* bulbis confertis et remotis, ut etiam longitudine foliorum." *Blume.*

15. *DENDROBIUM elongatum*.

D. "bulbis (diphyllis) oblongis quadrangularibus 2-phyllis, foliis lanceolatis retusis, racemo elongato multifloro, labello intùs membranaceo-lineato, limbi lobis obtusis." *Blume p. 332. sub Desmotricho.*

Hab. in sylvis altioribus montium Gede et Salak, *Javæ*, florens Julio Augusto; *Blume.*

"Sepala lineari-acuminata, erecto-patentia, flavescentia; labelli limbus semi-trilobus." *Blume.*

16. *DENDROBIUM geminatum*.

D. "bulbis (diphyllis) oblongis compressis subtetragonis 2-phyllis, foliis lanceolatis retusis, racemis subgeminatis paucifloris, labello intùs lineolato, limbi lobo medio ovato acuto." *Blume p. 332. sub Desmotricho.*

Hab. in sylvis altioribus montium Gede et Salak, *Javæ*, florens Augusto; *Blume.*

"Sepala acuminata, flavescentia; labellum versus basin purpurascens, limbo sulphureo." *Bl.*

§ II. *Caules undique foliosi, cylindranei, sæpe penduli.*

17. *DENDROBIUM aureum*.

D. caulibus teretibus pendulis, internodiis abbreviatis, foliis lineari-oblongis apice obliquis emarginatis, floribus geminatis, sepalis ovatis

obtusis, petalis undulatis obtusis sepalis majoribus, labello cucullato : limbo ovato obtuso undulato integerrimo intùs pubescente.

Hab. in *Zeylona*, supra arbores, in montem Nuera Ellia, florens Januario, *Macrae*. (*hab. s. sp. et ic. pict.*)

Flores magni, aurei, ex *Macrae* odoratissimi. Labellum disco aurantiaco.

18. *DENDROBIUM biflorum*. *Swartz*.

D. caule tereti simplici, foliis lineari-lanceolatis acuminatis planis, pedunculis bifloris lateralibus e paleis erumpentibus, labello trifido acuminato.

Epidendrum biflorum. *Forst. ! Prodr. n. 318.*

Dendrobium biflorum. *Swartz. act. Holm. 1800. p. 246. Willd. no. 17.*

Hab. in *Societatis insulis*, *Forster*; *Nav. Cook.* (*v. iconem Forsterianam in Bibliotheca Banksiana, et s. sp. sine floribus in Herb. Banksiano.*)

Obs. Flores e paleis corneis ex internodiis provenientibus erumpunt.

19. *DENDROBIUM macrostachyum*.

D. caulibus teretibus pendulis flagelliformibus, foliis ovato-lanceolatis submembranaceis, floribus ternatis racemum spurium formantibus, sepalis ovatis acutis, petalis lanceolatis sepalo supremo subæqualibus, labello cucullato venoso : limbo ovato obtuso ciliato intùs pubescente.

Hab. supra arbores *Zeylonæ*, florens Julio, *Macrae*. (*hab. s. sp. et ic. pict.*)

Flores virescentes quam *D. cucullati* multò minores. Sepala et petala apice violacea. Labellum apice viride, venis roseis pulcherrimè pictum.

From a dried specimen of this species communicated to me by Mr. *Macrae* I picked a small living shoot, which has since sprouted forth in the Garden of the Horticultural Society where it is now growing.

20. *DENDROBIUM heterocarpum*. *Wall.*

D. caulibus teretibus pendulis, foliis oblongis acutis planis, floribus geminatis odoratis racemum spurium formantibus, sepalis lineari-oblongis acutis, petalis ovatis acutis sepalo supremo majoribus, labello unguiculato, limbo subpanduriformi holosericeo medio elongato acuminato plano.

Hab. in *Napalia*, *Wallich.* (*v. ic. pict. in Museo Anglo-Indico.*)

Flores dilutissimè flavescentes, fragrantissimi (ex cl. *Wallich*). Labellum luteum intùs rubro obscuro pictum. Capsulæ ex *Wallich* carnosæ, in-crassatæ, subclavatæ, angulis crassissimis bilobis.

Very near *D. cucullatum* from which it is distinguished by its pale yellow fragrant flowers, and the form of the labellum.

21. *DENDROBIUM amœnum*. *Wall.*

D. caulibus pendulis gracilibus nebulosis floriferis aphyllis, foliis lanceolatis acutis, floribus geminatis racemum spurium formantibus longè pedunculatis divaricatis, sepalis oblongis obtusis, petalis obtusis sepalo supremo paulò majoribus, labelli cucullati limbo ovato obtuso crenulato leviter ciliato : disco villosa.

? *Dendrobium aphyllum*. *Roxb. Mss.*

Hab. supra arbores in *Napalia*, florens Aprili Maio, *Wallich.* (*v. ic. pict. in Museo Anglo-Indico.*)

Planta florifera omninò aphylla, caulibus gracilibus nebulosis dignoscenda. Flores albi maculâ parvâ violaceâ ad apicem cujusvis segmenti. Labellum intùs versus basin viridi-luteum.

This lovely species is abundantly distinguished by its slender stems, leafless, and clouded with dusky brown when in blossom; and also by its delicate white flowers, the tips of whose segments are remarkably blunt and tinged with delicate violet.

Dr. Wallich remarks in his Mss. that its fragrance is exquisite, not unlike that of *Olea fragrans*.

22. *DENDROBIUM* Pierardi. *Roxb.*

D. caulibus pendulis glabris, foliis ovato-lanceolatis acutis, floribus geminatis racemum spurium formantibus, sepalis acuminatis membranaceis, petalis sepalo supremo majoribus acuminatis, labello cucullato dilatato subtruncato pubescente ciliato.

Dendrobium cucullatum. *R. Brown in Bot. Reg. t. 548.*

Dendrobium Pierardi. *Roxb. Hort. Beng. Hooker Exotic Flora t. 9. Wall. Cat. no. 2007.*

Hab. in *India Orientali* calidiore, præsertim circa Chittagong et ad ostia Gangis, sæpiùs *Mangiferae* adnascens, *Roxb. Mss. (hab. s. e Museo Anglo-Indico, et v. v. cult.)*

Flores diaphani, dilutè rosei, inodori. Labellum luteum, basi rubens, callo transverso supra unguem, lateribus purpureo-venosis.

The flowers vary in size according to the health of the individual; they also are occasionally seen with the sepals and petals more acuminate than usual. A variety with stems spotted with purple is known in our hot houses.

There can be no doubt that the plant figured in the *Exotic Flora* as *D. Pierardi*, that cultivated in the Botanic Garden at Calcutta under the same name, and the *D. cucullatum* of the Botanical Register, are all one and the same species. The latter exhibits *D. Pierardi* in the state in which it commonly appears in our stoves; but whether the flowers appear from among the leaves, or occupy the old leafless stems, depends not upon any specific difference, but upon the state of health of particular individuals.

Dr. Roxburgh says that the leaves of his *D. Pierardi* are emarginate and the flowers yellow. It is not impossible that he has confounded *D. Pierardi*, *D. transparens* and *D. heterocapum*, all which, although slightly different, are undoubtedly distinct.

23. *DENDROBIUM* transparens. *Wallich. Cat. no. 2008.*

D. caulibus pendulis teretibus, foliis ovato-lanceolatis acuminatis apice obliquis, floribus geminatis, sepalis acuminatis, petalis obtusis sepalo supremo majoribus, labello oblongo undulato ciliolato obtuso intùs levisimè pubescente.

Hab. in *Napalia*, *Wallich. (hab. s. sp. e Museo Anglo-Indico.)*

Flores dilutè rosei, labello concolore.

Very like *D. Pierardi*, from which it is distinguished by its leaves being longer and emarginate at the apex, by the petals being obtuse and the labellum much less hairy, and pink not yellow. The stems are also far shorter.

24. *DENDROBIUM* nobile.

D. caulibus teretibus pendulis, foliis oblongis obliquè emarginatis obtusis, floribus geminatis, sepalis ovalibus, petalis conformibus majoribus, labello subrotundo cucullato cordato.

Hab. in *China*, *Reeves*. (v. ic. pict. sinens. in *Bibl. Hort. Soc.*)

Flores maximi, speciosissimi, carnosì, albi, ad basin extùs virescentes, apice purpurei. Labellum apice purpureum, basi intensè sanguineum. Anthera purpurea.

25. *DENDROBIUM chrysanthum*. *Wall. Cat. no. 2012.*

D. caulibus teretibus pendulis, foliis contortis ovato-lanceolatis acuminatis, floribus ternatis inter folia nascentibus, sepalis carnosìs oblongis obtusis: venis extùs tuberculatis, petalis obovatis retusis carnosìs sepalo supremo latioribus, labello cucullato denticulato retuso obsoletè trilobo.

Dendrobium chrysanthum. *Bot. Reg.* 1299.

Hab. in *Napalia*, *Wallich*. (hab. s. sp. e *Museo Anglo-Indico*, et v. v. cult.)

Flores intensè lutei carnosì, extùs tuberculis crebris muniti; petala tamen minus tuberculata. Labellum intùs maculâ atrosanguineâ.

26. *DENDROBIUM longicornu*. *Lindl. in Wall. Cat. no. 1997.*

D. caulibus erectis hispidis flexuosis, foliis ovato-lanceolatis apice valdè obliquis, floribus fasciculatis v. solitariis terminalibus, bracteis ovatis acuminatis hispidis pedicello multò brevioribus, sepalis lateralibus in calcare longo acuminato connatis, petalis sepalo supremo conformibus, labello infundibulari cucullato integro dentato basi cum pede columnæ accreto. *Lindley in Bot. Reg. fol.* 1315.

Hab. in *Sylhet* et *Napalia*, *Wallich*. (hab. s. sp. e *Museo Anglo-Indico*, et v. v. cult.)

Caules erecti, pedales sesquipedalesve. Flores albi, $1\frac{1}{2}$ unciam, ab apice columnæ ad apicem sepali supremi, longi. Labellum luteum extùs album, intùs lineâ axili venisque multis croceis. Columna brevis, semiteres, basi longissimè producta; clinandrium dente postico acuto, lateribus elevatis dentatis. Anthera subrotunda, anticè lanuginosa.

This remarkable species would be referable to Dr. Blume's *Pedilonum* if that genus were adopted. It has flowered in the Garden of the Horticultural Society, where I examined it. The structure of its stigma is highly curious, and unlike that of any other Orchideous plant with which I am acquainted. That part which Richard calls the rostellum, and through which impregnation takes effect is a two-lipped process, the lower lip of which is thick and abruptly truncate, the upper thinner, very irritable, inflected when the pollen is humid, but curving back with considerable elasticity if afterwards touched. The whole of the orifice of the stigmatic canal is choked up with a thick mucus.

I am not sure that this remarkable œconomy is not sufficient to constitute a particular genus; but I am unwilling to make use of it, especially as it is an obscure character, unless it shall be found that a similar structure exists in other species which can be combined with it.

27. *DENDROBIUM Sarcostoma*.

D. foliis linearibus subcarnosis basi vaginantibus, floribus terminalibus subsolitariis.

Sarcostoma javanica. *Blume p.* 340. t. 45.

Hab. in sylvis opacis montis Salak, *Javæ*, florens Julio Septembri; *Blume*.

“ Herba parasitica, pusilla, subcaulescens. Folia pauca linearia, basi vaginantia, subcarnosa. Flores è paleis erumpentes, terminales, subso-

litaria. Labellum unguiculatum, supernè latius, concavum, gynostemio incumbens; limbus subtrilobus, lobo medio carnosus. Gynostemium (columna) supernè incrassatum, anticè ad apicem rostello brevi instructum. Anthera cristata, bilocularis. Massæ pollinis 4, obovatæ, per paria elasticè cohærentes. *Blume.*

28. *DENDROBIUM gemellum.*

D. "foliis membranaceis lanceolatis acuminatis, pedunculis oppositifoliis subbifloris, limbo labelli acuminato." *Blume.*

Pedilonum biflorum. *Blume p. 322.*

Hab. locis humidis umbrosis montis Salak, *Javæ*, florens Maio; *Blume.*

Floris emarcidi fabricam accuratè explorare non potuit indefessus *Blume.*

29. *DENDROBIUM secundum.* *Wallich. Cat. no. 1996.*

D. caulibus pendulis, foliis oblongis apice obliquè retusis, racemis lateralibus terminalibusque secundis, sepalis ovatis: lateralibus basi in cornu longum obtusum incurvum connatis, petalis supremo paulò minoribus, labello integerrimo acuto apice tumido. *Lindl. in Bot. Reg. t. 1291.*

Pedilonum secundum. *Blume p. 322.*

Hab. in *Freti Malaccensis* insula, *Wallich*; circa *Tjikao* in montosis *Javæ*, florens Junio Julio, *Blume*; etiam in *Sumatra*. (v. v. cult. e *Sumatra alatum*: hab. s. sp. e *Museo Anglo-Indico*; et v. ic. pict. *Wallichian.*)

Flores amœni purpurei, *Fumariæ* cujusdam facie, concolores, labelli apice aurantiaco. Pollen purpureum!

30. *DENDROBIUM formosum.* *Roxb.*

D. caulibus teretibus pendulis pilosis, foliis distichis ovatis apice obliquè emarginatis obtusis, racemo brevi terminali 4-5-floro, bracteis brevibus ovatis, (floribus maximis), sepalis oblongis acutis: lateralibus basi longè productis, petalis duplò latioribus acutis, labello obovato dilatato retuso cum basi columnæ in calcar obtusum connato. *Lindley in Wall. Pl. As. Rar. no. 39.*

Dendrobium formosum. *Roxb. Mss. Wall. Cat. no. 1998.*

Hab. in *Silhet*, *Napalia*, et *Martabania*, *Wallich*. (hab. s. sp. e *Museo Anglo-Ind.*)

31. *DENDROBIUM polyanthum.* *Wall. Cat. no. 2009.*

D. caulibus teretibus pendulis, foliis oblongo-lanceolatis apice integris, racemis 3-4-floris lateralibus foliis brevioribus, sepalis lanceolatis: lateralibus supremo subæqualibus, petalis majoribus oblongis undulatis obtusis, labello obovato cucullato ciliato, capsulis fusiformibus.

Hab. in *Moolmayne*, *Indiæ Orientalis*, *Wallich*. (habeo s. sp. e *Museo Anglo-Indico floribus delapsis.*)

Capsulæ teretes, angulis nullis, floribus non coronatæ.

32. *DENDROBIUM bifarium.* *Wall. Cat. no. 2002.*

D. caulibus teretibus pendulis, foliis bifariis oblongis sessilibus nitidis apice bilobis obliquis, racemis subterminalibus brevibus multifloris, bracteis ovatis reflexis

Angræcum purpureum primum. *Rumphius 6. t. 49. f. 2.*

Hab. in *Penang*, *Wallich*. (hab. s. sp. defloratum e *Museo Anglo-Indico.*)

June, 1830.

M

Flores non vidi. Capsulæ ovales 6-costatæ, pisi magnitudine.

The habit of this species is so peculiar that it is not likely to be confounded with any other species. Its flowers have not been seen. The leaves of my dried specimens are glossy and beautifully marked with the longitudinal and transverse veins. The stems are as much as two feet long, while the leaves are only $1\frac{1}{4}$ inch long and $\frac{1}{4}$ inch broad.

33. *DENDROBIUM vestitum*. Wall. Cat. no. 2005.

D. caulibus pendulis villis deciduis densè vestitis, foliis coriaceis lanceolatis apice obliquis obtusis integris suprâ sparse subtùs densissimè villosis, racemis elongatis multifloris flexuosis bracteis ovatis coriaceis persistentibus floribus capsulisque villosis, sepalis lateralibus in cornu obtuso porrecto connatis, petalis sepalo superiore minoribus.

Hab. ad *Singapore*, Wallich. (habeo s. sp. defloratum e Museo Anglo-Indico.)

Species valdè singularis, superficie villosissimâ ab omnibus distincta. Florum ad apicem capsularum vestigia emarcida mutila tantum vidi. Folia adulta 6 uncias longa.

34. *DENDROBIUM ramosum*. Lindl. l. c. no. 2003.

D. caulibus pendulis gracilibus ramosis glabris, foliis lanceolatis acuminatis apice integerrimis, floribus subracemosis, bracteis membranaceis reflexis obtusis, sepalis lateralibus magnis in cornu elongatum rectum connatis, petalis minoribus, labello cucullato acuto crispo.

Hab. in montibus *Pundua*, Wallich. (habeo s. sp. e Museo Anglo-Indico.)

Flores malè conservatos et mutilos tantum vidi. Species *D. Pierardi* affinis, distincta tamen habitu ramoso magis gracili, floribusque subracemosis nec geminis ternisve. Formam labelli et petalorum haud licuit detegere.

35. *DENDROBIUM pulchellum*. Roxb.

D. caulibus teretibus pendulis, foliis oblongo-lanceolatis subplicatis, racemis lateralibus strictis multifloris, bracteis brevibus ovatis obtusis, sepalis ovatis acuminatis subcostatis, petalis oblongis obtusis tenuioribus et latioribus, labello unguiculato cochleariformi obtusissimo ciliato petalis brevioribus.

Dendrobium pulchellum. Roxb. Mss.

Hab. supra arbores et saxa in sylvis *Sylhet*, florens Maio Junio, Roxb. Mss. (v. ic. pict.)

Sepala albida. Petala rosea. Labellum lutescens maculâ basi rubro-aurantiacâ.

36. *DENDROBIUM moschatum*. Wall.

D. caulibus teretibus pendulis, foliis, racemis lateralibus laxis 6-floris, bracteis brevibus oblongis obtusis, sepalis oblongis obtusis patentissimis petalisque oblongis retusis latioribus obsolete tessellatis, labello unguiculato cochleariformi obtusissimo extùs villosis.

Dendrobium moschatum. Wall. Mss. Don Prodr. 34.

Epidendrum moschatum. Hamilt. apud Symes. Emb. 3.315. c. ic.

Hab. in *Pegu*, Wallich. (v. ic. pict. in Mus. Anglo-Indico.)

Flores speciosissimi diametro $2\frac{1}{2}$ -3 unciarum, amœnè sed pallidè aurantiaci. Labellum extùs ejusdem coloris, intùs luteum basin versus utrinque maculis duabus amplis coccineis, venis quinque cristato-fimbriatis.

This superb species flowers without its leaves in the Botanic Garden at Calcutta, in May. The blossoms exhale a faint smell resembling that of Rhubarb, as I learn from Dr. Wallich's Mss.

37. † *DENDROBIUM Calceolaria*. *Hooker*.

D. caulibus teretibus pendulis, foliis linearibus obtusis, racemis lateralibus laxis 5-floris, sepalis patentissimis petalisque oblongis obtusis latioribus venosis reticulatis, labello unguiculato cochleariformi obtusissimo margine abruptè inflexo pubescente.

Dendrobium Calceolaria. Hooker. Ex. Fl. 184.

Hab. in India Orientali, Hooker.

Flores rosei, magnitudine *D. moschati*, versus columnam flavescentes. Labellum lutescens, intus maculis duabus amplis coccineis (venis nullis fimbriatis ex Hookero) ungue luteo. Columna et anthera atropurpureæ, anticè luteæ.

This species approaches very nearly to *Dendrobium moschatum*, with which however Dr. Hooker does not contrast it. It appears to differ in the characters I have pointed out, especially in the absence of the 5 crested veins that are found in the inside of the lip of *D. moschatum*, which Dr. Hooker would no doubt have both figured and described had they existed in his *D. Calceolaria*.

Upon referring to Dr. Wallich's Mss. I find that his *Dendrobium Calceolus* is the same as *D. moschatum*, and that he described it from Dr. Carey's Garden. It is therefore strongly to be suspected that this and *D. moschatum* are both the same.

38. *DENDROBIUM fimbriatum*. *Wall. Mss.*

D. caulibus teretibus pendulis, foliis ovato-lanceolatis, racemis lateralibus multifloris, sepalis oblongis undulatis patentissimis, petalis majoribus undulatis ciliatis, labello indiviso cucullato rotundato fimbriato, fimbriis laceris.

Dendrobium fimbriatum. Hooker. Exot. Fl. 71. Wall. Cat. no. 2011.

Hab. in Napalia, Wallich. (hab. s. sp. e Museo Anglo-Indico.)

Flores intensè aurei, in icone Hookeriano unicolores, salvis striis quibusdam versus basin aurantiacis; verosimiliter tamen basi sanguineo-maculati in spontanea planta.

This species has in some respects the appearance of *Dendrobium chrysanthum*, from which however it is distinguishable both by its inflorescence and by the different shape of its petals.

39. *DENDROBIUM auriferum*.

D. caulibus teretibus pendulis, foliis oblongis obtusis integris, racemis lateralibus horizontalibus clavatis foliorum longitudine, bracteis cucullatis densè imbricatis, sepalis petalis labelloque lineari-lanceolatis conniventibus acuminatissimis.

Hab. in China, Reeves. (v. ic. pict. sinens. in Bibl. Hort. Soc.)

Flores aurei. Bracteæ virides. Sepala lateralia basi parum dilatata.

40. *DENDROBIUM moniliforme*. *Swartz.*

D. caulibus erectis ramosis, internodiis tumidis, foliis oblongis obliquè emarginatis obtusis, floribus geminatis foliis longioribus, sepalis petalis-

que oblongis acutis venosis, labello cucullato acuto conformi. *Lindl. in Bot. Reg. fol. 1314.*

Fu Ran. *Kæmpf. amæn. t. 865.*

Epidendrum moniliforme. Linn. sp. pl. 1352.

Dendrobium moniliforme. Swartz act. Holm. 1800. p. 246. Willd. no. 19.

Hab. in *Japoniæ* rupibus et arboribus. (*v. ic. pict. v. cult. e China allatum.*)

The *Epidendrum monile* of Thunberg, which that writer says has acute leaves and white flowers, is a distinct species. See *D. catenatum*.

41. *DENDROBIUM catenatum.*

D. caulibus teretibus erectis: internodiis tumidis, foliis lineari-lanceolatis acutis, racemis lateralibus 4-5-floris, sepalis petalisque lanceolatis acuminatis, labello oblongo tridentato.

Epidendrum monile. Thunb. Fl. Jap.

Hab. in *Japonia*, Thunberg; in *China*, Reeves. (*v. ic. pict. sinens. in Bibl. Hort. Soc.*)

Sepala viridia. Petala alba. Labellum disco fulvum sub apice tridentato purpureo-maculatum.

42. *DENDROBIUM denudans. Don.*

D. caulibus brevibus cæspitosis erectis vaginis laxis foliorum vestitis, foliis oblongo-lanceolatis submembranaceis apice obliquis emarginatis, racemis lateralibus terminalibusque nutantibus multifloris, sepalis acuminatis: lateralibus basi incurvis, petalis minoribus, labelli trilobi lobo medio crenulato recurvo: lateralibus serratis.

Dendrobium denudans. Don. Prodr. 34. Wall. Cat. no. 2014.

Hab. in *Napalia*, Wallich. (*hab. s. sp. e Museo Anglo-Indico, et v. ic. pict. Wall.*)

Flores albi, virescentes. Labellum viride, concolor.

This species is the most variable that I know in point of size. Some of Dr. Wallich's specimens are not more than an inch and half high, with two or three leaves and as many flowers on each individual, while others are six or seven inches high, with numerous distichous leaves, and three or four long nodding racemes, each consisting of eight or nine flowers. The species is always distinguishable by the loose membranous sheaths which clothe the stem when the leaves have fallen off.

43. *DENDROBIUM cuspidatum. Lindl. in Wall. Cat. no. 2015.*

D. caulibus brevibus erectis 3-5-phyllis, foliis lineari-oblongis apice obliquis emarginatis, racemis terminalibus 3-4-floris foliis brevioribus, bracteis lineari-ovatis acutis, petalis sepalisque lineari-lanceolatis acuminatis æqualibus: horum lateralibus basi incurvis cornu referentibus, labelli trilobi petalis duplò brevioris lobis lateralibus maximis erectis rotundatis integerrimis: intermedio ovato acuminato.

Hab. in *Tavoy*, Wallich. (*hab. s. sp. Museo Anglo-Indico.*)

This species resembles in many respects *D. denudans*, from which it is abundantly distinguished by the loose sheaths of the fallen leaves not covering the stem, and by the peculiar form of the lip. My specimens are from 3 to 4 inches high. The flowers appear to be white.

44. *DENDROBIUM barbatulum. Lindl. l. c. no. 2013.*

D. caulibus teretibus, foliis, racemis lateralibus termi-

nalibusque strictis multifloris, sepalis ovatis acuminatis, petalis obovatis acutis sepalo supremo majoribus, labello plano obovato obtuso apiculato integerrimo basi barbatulo.

Hab. in *India Orientali*, Heyne. (*hab. s. sp. e Museo Anglo-Indico.*)

Flores diaphani *D. macrostachyi* magnitudine.

Very nearly related to *D. pulchellum* from which it is distinguished by the much smaller size of the flowers, and the form of the labellum.

45. *DENDROBIUM pygmæum*. Lindl. l. c. no. 1999.

D. caulibus erectis cæspitosis vaginis laxis foliorum vestitis, foliis lineari-lanceolatis, racemis suberectis terminalibus multifloris foliorum longitudine, rachi angulato, bracteis membranaceis acuminatis, sepalis inferioribus ovatis acuminatis ad basin cornu incurvo connatis: supremo petalisque lineari-spatulatis acutis, labello unguiculato cuneato integro: callis duobus longitudinalibus in disco; margine anteriore carnosio crispato plicato lobo intermedio ovato.

? *Dendrobium pusillum*. Don. Prodr. 35.

Hab. ad Prome, *Martabanæ*, Wallich. (*hab. s. sp. e Museo Anglo-Indico.*)

Herba 2-3-pollicaris, verosimiliter cæspitosa. Pseudo-bulbi nulli. Racemi erecti v. cernui. *D. denudanti* affinis, sed labelli latera nullo modo serrata, et figura diversa.

46. *DENDROBIUM linguæforme*. Swartz.

D. caulibus teretibus repentibus, foliis sessilibus obovatis altè trisulcatis, racemis erectis multifloris, sepalis petalisque linearibus acuminatissimis, labelli abbreviati lobo medio undulato tricarinato.

Dendrobium linguæforme. Swartz act. Holm. 1800. p. 247. Smith Exot. Bot. t. 11. Willd. n. 24. R. Brown Prodr. 333.

Hab. in *insulis maris Pacifici; Nova Hollandia*, Banks, R. Brown. (*v. s. sp. in Herb. Banks.*)

Flores pallidè flavi. Labellum cristis luteis, lobis lateralibus cæruleis.

47. *DENDROBIUM rigidum*. R. Brown.

D. "caulibus repentibus, foliis oblongo-lanceolatis acutis carnosius longitudine racemi pauciflori patuli, perianthii foliolis oblongis acutiusculis æquantibus labellum laminâ oblongâ obtusâ." Brown Prodr. 333.

Hab. in *N. Hollandia tropica*; R. Brown.

48. *DENDROBIUM flavescens*.

D. "ebulbe, foliis paucis lineari-lanceolatis obtusis basi canaliculatis, floribus alternis subspicatis terminalibus pubentibus, labello intus pubescente, limbo emarginato plicato." Blume.

Onychium flavescens. Blume p. 325.

Hab. in montosis Salak et Seribu, *Javæ*, florens Martio Octobri; Blume.

Flores parvi, flavi. Bl.

49. *DENDROBIUM nudum*.

D. "foliis lineari-lanceolatis inæquali-acuminatis membranaceis, racemis paucifloris, sepalis interioribus lanceolatis dorsali angustioribus." Blume.

Onychium nudum. Blume p. 325.

Hab. in altis montis Salak, *Javæ*, florens Maio Junio; Blume.

“Caules articulati, supernè flexuosi; flores dilutè purpurascens, demùm flavescentes; labellum ad basin unguiculo præditum.” *Bl.*

50. *DENDROBIUM mutabile.*

D. “foliis lineari-lanceolatis obtusis obliquè retusis membranaceis.” *Blume.*

Onychium mutabile. Blume p. 324.

Hab. in montosis *Javæ*, florens Septembri Octobri; *Blume.*

Flores densè racemosi dilutè rosei, labello glandulis tribus sulphureis ornato. Gynostemium anticè pubescens. Petala sepalo supremo latiora. Labellum infernè unguiculo libero instructum. *Bl.*

51. *DENDROBIUM rigidum.*

D. “foliis lato-lanceolatis obliquè retusis rigidis.” *Blume.*

Onychium rigidum. Blume p. 324.

Hab. in montosis *Javæ*, florens Septembri, &c. *Blume.*

“Flores albidii, labello glandulis tribus flavescentibus instructo; forsan varietas præcedentis (*D. mutabilis*) sed firmitate partium discrepat.” *Bl.*

52. *DENDROBIUM erosum.*

D. “foliis subcoriaceis lanceolatis obtusis, racemis brevibus oppositifoliis subterminalibusve, sepalis obtusis, dorsali interioribus latiore, labelli limbo rotundato concavo eroso.” *Blume.*

Pedilonum erosum. Blume p. 323.

Hab. in sylvis altioribus Salak, *Javæ*, florens Junio; *Blume.*

53. *DENDROBIUM hymenophyllum.*

D. “foliis membranaceis lanceolatis inæquali-acuminatis, pedicellis brevibus, sepalo dorsali interioribus obtusis æquali, sacco calcariformi longissimo, limbo labelli undulato.” *Blume.*

Pedilonum undulatum. Blume p. 322. t. 36.

Hab. in sylvis Salak, *Javæ*, florens Junio; *Blume.*

Sepala purpurascens; labellum flavum. *Bl.*

54. *DENDROBIUM villosulum. Wall. Cat. no. 2006.*

D. caulibus flagelliformibus longissimis pube deciduâ hispidis, foliis ovato-lanceolatis apice obliquè bilobis rectis, floribus

Hab. in *Penang*, *Wallich.* (*habeo s. sp. sine floribus e Museo Anglo-Indico.*)

Frustula tantum vidi. Species valdè distincta sed recognoscenda.

55. *DENDROBIUM acuminatissimum.*

D. “foliis membranaceis linearibus sepalisque acuminatissimis.” *Blume.*

Grastidium acuminatissimum. Blume p. 335.

Hab. in convallibus montis Salak supra arbores, *Javæ*, florens Maio Junio; *Blume.*

Flores virescentes. *Bl.*

56. *DENDROBIUM salaccense.*

D. “foliis membranaceis lineari-lanceolatis obliquè retusis, sepalis acutis, labello obtuso intùs 1-lineato.” *Blume.*

Grastidium salaccense. *Blume p. 333.*

Hab. in sylvis altioribus montis Salak, *Javæ*, florens Augusto Decembri ;
Blume.

Flores lutei. *Bl.*

57. *DENDROBIUM rugosum.*

D. "foliis subcoriaceis lanceolatis apice emarginatis, sepalis et labelli
limbo acuminatis, labello intùs membranaceo-rugoso." *Blume.*

Grastidium rugosum. *Blume p. 333.*

Hab. in sylvis altioribus montis Salak, *Javæ*, florens Februario ; Blume.

Flores flavi. *Bl.*

58. *DENDROBIUM Kuhlii.*

D. "foliis submembranaceis lanceolatis apice inæquali-obtusis, sepalo
dorsali interioribus lato-lanceolatis latiori, labelli limbo spatulato acuto."
Blume.

Pedilonum Kuhlii. *Blume p. 321.*

Hab. in montibus altioribus provinciarum occidentalium *Javæ*, florens
Maio Julio ; Blume.

Flores pallidè purpurascentes. *Bl.*

59. *DENDROBIUM Hasseltii.*

D. "foliis rigidis lanceolatis profundè obliquè emarginatis, sepalo dorsali
interioribus lato-lanceolatis æquali, labelli limbo lineari-acuto." *Blume.*

Pedilonum Hasseltii. *Blume p. 321.*

Hab. ad montem Pangoerangoe ad truncos arborum, *Javæ*, florens Maio
Junio ; Blume.

Flores profundè purpurascentes. *Bl.*

60. *DENDROBIUM æmulum.* *R. Br.*

D. "caulibus erectis apice 2-3-phyllis, foliis ovali-oblongis integerrimis
racemo terminali multifloro brevioribus, perianthii foliolis linearibus,
labello infrà divisuram carinâ triplici ; lobo intermedio semiovato acu-
tiusculo unicarinato." *Brown.*

Dendrobium æmulum. *Br. Prodr. 333. Hooker in Bot. Mag. 2906.*

Hab. ad Portum Jackson, *Novæ Hollandiæ* ; R. Brown.

Flores ex icone Hookeriano albidì labello rubroguttato.

61. *DENDROBIUM speciosum.*

D. caulibus erectis, apice 2-3-phyllis, foliis ovali-oblongis integerrimis
racemo terminali multifloro brevioribus, perianthii foliolis angusto-
oblongis, labello infrà divisuram carinâ unicâ ; lobo intermedio latiore
quam longo ecarinato." *Brown Prodr. 332.*

Dendrobium speciosum. *Exot. Bot. t. 10.*

Hab. in *Nova Hollandia tropica*, etiam ad Portum Jackson. (*v. s. sp.*)

62. *DENDROBIUM undulatum.* *R. Br.*

D. "foliis bifariis ovali-oblongis emarginatis, racemis oppositifoliis lon-
gissimis, labello intùs 5-carinato, lobo intermedio oblongo foliolisque
interioribus perianthii undulatis." *Brown Prodr. 332.*

Hab. in *N. Holl.* tropica; *R. Brown*; Bustard's Bay, Bay of Inlets, Cape Grafton, &c. *Banks.* (*v. s. sp. in Herb. Banks. et habeo flores comm. a celeb. Brown.*)

NOTE. The figures of Rumphius

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———— t. 51. f. 1.

belong to this section—but to species with which I am unacquainted.

§ III. *Caules undique foliosi, basi incrassati.*

63. *DENDROBIUM crumenatum.* *Swartz.*

D. caulibus cæspitosis erectis basi incrassatis teretibus, foliis ovato-oblongis obtusis emarginatis, racemo terminali 3-5-floro, sepalis petalisque ovatis acuminatis subundulatis conformibus, labello cucullato undulato acuminato.

Angræcum crumenatum. *Rumph.* 6. t. 47. f. 2.

Dendrobium crumenatum. *Swartz.* *Willd.* no. 20. *Lindl.* in *Hort. Trans.* 7. p. 70.

Onychium crumenatum. *Blume* p. 326.

Hab. supra arbores, *Javæ*, *Blume*; *Sumatræ*, *Raffles*; *Penang*, *Wallich.* (*v. v. cult.*)

Flores albi, odorati, apicibus roseis, labelli disco luteo.

Variat floribus albidis et lilaceis, etiam foliis ovalibus v. oblongis retusis crassioribus; *Bl.*

64. *DENDROBIUM angulatum.* *Wall. Cat. no. 2010.*

D. caulibus gracilibus subramosis basi fusiformibus carnosis glaberrimis, foliis linearibus basi latioribus apice emarginatis obliquis, floribus e gemma paleacea exortis solitariis

Hab. ad *Attran*, *Martabanæ*, *Wallich.* (*habeo s. sp. e Museo Anglo-Indico ferè defloratum.*)

Florem unicum mutilum tantum vidi, magnitudine et facie *Apori* ancipitis. Sepala lateralia cæteris multò majora. Petala sepalo supremo verosimiliter paulò minora. Folia minora.

65. *DENDROBIUM Blumii.*

D. “foliis lineari-lanceolatis obliquè retusis, floribus subterminalibus paleis cinctis, labello intùs disco supernè tricuspidato instructo, limbi lobo medio abbreviato fimbriato-bifido.” *Blume.*

Onychium fimbriatum. *Blume* p. 325.

Hab. in sylvis montis *Pantjar*, *Javæ*, florens Junio; *Blume.*

Caules compressi ad basin bulbo dilatato-tetragono instructi. *Bl.*

66. *DENDROBIUM tricuspe.*

D. “foliis lineari-lanceolatis obtusiusculis, floribus terminalibus paleis cinctis, labello intùs disco supernè tricuspidato instructo, limbo lobo medio rotundato integerrimo.” *Blume.*

Onychium tricuspe. *Blume* p. 326.

Hab. ad arbores in sylvis montis *Salak*, *Javæ*, florens Octobri; *Blume.*

“Caules compressi, supra basin bulbo compresso instructi. Accedit præcedenti (*Onychio* suo fimbriato) cui differt limbo labelli integerrimo.” *Bl.*

67. *DENDROBIUM lamellatum*.

D. "foliis lato-lanceolatis in bulbis compressis vaginantibus, pedunculis confertis paucifloris ex apice bulborum erumpentibus, labelli limbo undulato, ungue gynostemii appendice lamellato instructo." *Blume*.

Onychium lamellatum. *Blume Bijl.* 326. t. 10.

Hab. prope Passir Ipi in Provincia Buitenzorg, *Javæ*, florens Junio Augusto; *Blume*.

68. *DENDROBIUM tetraedre*.

D. "foliis linearibus emarginatis membranaceis (parvis), floribus oppositifoliis alternis, labelli limbo undulato, caule tetraedri." *Blume*.

Onychium tetraedre. *Blume p.* 327.

Hab. in sylvis altioribus montis Salak, *Javæ*, florens Junio; *Blume*.

"Planta parva; bulbi fusini. Flores albido-purpurascens, labello infernè unguiculo instructo, limbo semitrilobo." *Bl.*

69. *DENDROBIUM connatum*.

D. "foliis membranaceis ovali-oblongis, retusis, floribus oppositifoliis solitariis, labello infernè cum ungue gynostemii connato intùs verrucoso, limbo rotundato." *Blume*.

Onychium connatum. *Blume p.* 328.

Hab. ad pedem montis Salak, *Javæ*, florens Septembri Octobri; *Blume*.

"Caules incrassati, quasi articulati, foliis bifariis verticalibus. Flores albido-virescentes." *Blume*.

70. *DENDROBIUM japonicum*.

D. "foliis lineari-lanceolatis obtusiusculis, floribus subterminalibus alternis, pedicellis basi incrassatis, labello intùs pubescente, limbo ovato acuto." *Blume*.

Onychium japonicum. *Blume p.* 328.

Hab. in hortis *Javæ* ex *Japonia* allatum; *Blume*.

"Caules ebulbi sed supra basin incrassati, teretiusculi, articulati; flores liliacei, odorati; labellum basi ad marginem subciliatum, intùs pubescens, basi non appendiculatum; unguis gynostemii latus, concavus." *Blume*.

71. *DENDROBIUM Ceraia*.

Ceraia simplicissima. *Lour. Fl. Cochinch.* p. 518.

Hab. in sylvis *Cochinchinæ* et *Chinæ*, rupibus et arboribus inhærens, *Loureiro*. (v. s. sp. in *Herb. Banks.*)

In Herbario Banksiano adest exemplar ab ipso *Loureiro*, nomine *Keranthi* insignitum, quod procul dubio *Ceraia* ejus simplicissimæ pertinet. Unicum folium habet parvum lineare, sed flores nullos; esse autem *Dendrobium* quoddam *D. crumenato* valdè affine nihil dubito. Caules palmares basi tumidi fusiformes.

Note. The figures of *Rumphius*

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—— t. 45. f. 1.

—— t. 46. f. 2.

belong to this section, but to species with which I am unacquainted.

June, 1830.

N

§ IV. *Caules undique foliosi versus apicem sensim incrassati, unde clavati fiunt.*

This section, and the preceding one also, represent the stem of *Dendrobium* passing towards the pseudo-bulbous state of *Bolbophyllum*.

72. *DENDROBIUM densiflorum.* Wall. Cat. no. 2000.

D. caulibus articulatis clavatis pendulis apice foliosis, foliis oblongis acutis nervosis, racemis lateralibus multifloris foliis longioribus: junioribus strobiliformibus, bracteis oblongis plicatis recurvis pedicellis longioribus, sepalis patentissimis ovatis obtusis, petalis conformibus majoribus, labello majore rhomboideo unguiculato serrulato retuso. Lindl. in Wall. Pl. As. Rar. no. 40.

Epidendrum Dumunsuttu. Buchan. in Herb. Smith.

Hab. in *Napalia*, Wallich. (hab. s. sp. *defloratum* e Museo Anglo-Indico, v. ic. pict. et s. sp. in Herb. Smith.)

73. *DENDROBIUM nutans.*

D. caulibus articulatis subclavatis hispidis apice foliosis, foliis ovato-lanceolatis apice valdè obliquè uncinato-bilobis, pedunculis subterminalibus bifloris foliis brevioribus, bracteis minimis, petalis sepalisque lineari-lanceolatis acuminatis æqualibus membranaceis, labello conformi carnoso crenulato indiviso, capsulis oblongis nutantibus.

Hab. in collibus *Peradeniæ*, *Zeylonæ*, supra arbores, florens Novembri, *Macrae*. (habeo s. sp. et vidi iconem pictam.)

Caules pedales v. sesquipedales, subflexuosi. Folia in genere parva, subtùs minutissimè hispidiuscula. Flores albi, subvirescentes, labello luteo. Capsulæ oblongæ, angulis depressis, sterilibus vittæformibus marginatis.

74. *DENDROBIUM bicolor.*

D. caulibus erectis elongatis subclavatis apice foliosis, foliis lanceolatis acutis, racemo brevi erecto terminali v. subterminali 3-4-floro foliis multò brevioribus, bracteis oblongis obtusis petaloideis venosis, petalis sepalisque oblongis obtusis æqualibus, labello trilobo obtuso: lobis lateralibus erectis rotundatis.

Hab. in Monte *Nuera Ellia*, *Zeylonæ*, supra arbores crescens, Augusto florens, *Macrae*. (hab. s. sp. *defloratum*, et vidi iconem pict.)

Bracteæ magnæ oblongæ petaloideæ venosæ bicolores, apice virides basi fusco rubræ. Flores albid.

75. *DENDROBIUM Heyneanum.* Lindl. in Wall. Cat. no. 1995.

D. caulibus erectis flexuosis clavatis vaginis laxis foliorum vestitis, foliis lineari-lanceolatis acutis, racemis axillaribus patentissimis multifloris, bracteis minimis ovatis, sepalis petalisque ovato-lanceolatis acutis subæqualibus, labello trilobo cum basi columnæ connato, callo longitudinali in disco: lobis lateralibus acutis intermedio subrotundo carnoso inciso-crenato.

Hab. in *India Orientali*, *Heyne*. (hab. s. sp. e Museo Anglo-Indico.)

Racemi pedunculati multiflori patentissimi unà cum figura labelli speciem distinguunt.

§ V. *Folia teretia, subulata, v. semicylindracea.*76. *DENDROBIUM crispatum.* Swartz.

D. caule ramoso virgato tereti, foliis cylindraceis filiformibus subincurvis, racemis lateralibus simplicibus, labelli lobo medio revoluto undulato crenato.

Epidendrum crispatum. Forst.! *Prodr.* n. 315.

Dendrobium crispatum. Swartz. *act. Holm.* 1800. p. 247. Willd. n. 22.

Hab. in *Societatis insulis, Banks.* (v. iconem *Forsterianam* in *Bibliotheca Banksiana, et s. sp. in Herb. Banks.*)

Caulis articulatus, rigidus, lævigatus, graminis cujusdam ad instar. Folia teretia. Racemus terminalis.

77. *DENDROBIUM canaliculatum.* R. Brown.

D. "caulibus erectis abbreviatis bulbiformibus apice subtriphyllis, foliis semicylindraceis canaliculatis acutis carnosius, scapo terminali, racemo multifloro, perianthii foliolis oblongis, labelli lobis lateralibus oblongis; intermedio subrotundo acuto disco 3-lamellosus." *Brown Prodr.* 333.

Hab. in *N. Hollandia tropica*; R. Brown.

78. *DENDROBIUM teretifolium.* R. Brown.

D. "caulibus repentibus, foliis filiformibus teretibus, perianthii foliolis elongato-linearibus apice angustatis, labello tricarinato; lobo intermedio lineari-lanceolato acuminato crispato." *Brown Prodr.* 333.

Hab. ad Portum Jackson, *N. Hollandiæ*; R. Brown.

79. *DENDROBIUM tenellum.*

D. "foliis lineari-subulatis, floribus subterminalibus solitariis alternis, labelli limbo emarginato." *Blume.*

Onychium tenellum. *Blume* p. 327.

Hab. in arboribus circa catarractas calidas ad montem Gede, *Javæ*, florens Maio; *Blume.*

"Bulbi ovals, sulcati; flores albi, sepalis acutis; labellum intus striis purpurascens notatum." *Bl.*

80. *DENDROBIUM gracile.*

D. "foliis lineari-subulatis, floribus alternis solitariis geminisve, labelli limbo obtuso." *Blume.*

Onychium gracile. *Blume* p. 327.

Hab. in altioribus montis Gede, *Javæ*, florens Aprili; *Blume.*

"Bulbi ovals; flores nutantes, lilacini, sepalis obtusiusculis." *Bl.*

81. *DENDROBIUM subulatum.*

D. "foliis subcarnosis subulatis teretibus, pedicellis alternis subspicato-terminalibus, labelli limbo undulato emarginato." *Blume.*

Onychium subulatum. *Blume* p. 328.

Hab. locis humilioribus ad arbores *Javæ*, florens toto anno; *Blume.*

Caules bulbosi. Flores flavido-purpurascens. *Bl.*

* *Species defectu exemplarium et ob descriptiones mancas valdè dubiæ—
omnes recognoscendæ.*

82. ? *DENDROBIUM carinatum. Willd.*

*D. foliis oblongo-lanceolatis compressis articulatis, scapis ramosis. Willd.
no. 7.*

Bontia luzonica. Petiv. gazoph. t. 44. f. 10.

Epidendrum carinatum. Linn. sp. pl. 1350.

Hab. in insulis Luzonum.

83. ? *DENDROBIUM paniculatum. Swartz.*

*D. "caule infernè vestito foliis oblongis obtusis emarginatis, supernè an-
cipiti-vaginato, spiculis filiformibus paniculatis contiguis." Swartz.*

Dendrobium paniculatum. Swartz. Pers. syn. p. 523.

Hab. in Sierra Leone.

84. ? *DENDROBIUM roseum. Swartz.*

*D. "caule aphylo erecto vaginis membranaceis ovato-lanceolatis vestito,
racemo terminali, floribus deltoideo-conicis, labello spatulato crenulato."
Swartz.*

Dendrobium roseum. Swartz. Pers. syn. p. 523.

Hab. in Sierra Leone.

This very difficult and extensive genus, stands still in great need of reformation: particularly in the arrangement of the species. I am acquainted with several more than are here mentioned, but I am unwilling to introduce them without better materials.

I cannot conclude my account of the tribe of Orchideous plants with waxy pollen-masses destitute of glands and other secreting apparatus, without adverting to the genus *Angræcum*. I adopted this genus, some years since, from M. Du Petit Thouars, and published it in my *Collectanea Botanica*, t. 15. referring to it a plant, *A. maculatum*, found equally in Brazil and on the West coast of Africa, and now very common in the hot-houses of England. I described the pollen masses of this plant as destitute of a gland, and my drawing was in conformity with that description. I subsequently examined an imperfect living specimen of a Sierra Leone plant which I believe to be the *Limodorum luridum* of Afzelius, and which is in all probability also an *Angræcum*, and I took the pollen masses to be as I had before seen them in my *Angr. maculatum*, that is to say destitute of a gland. In a memoir upon the Orchideous plants of the Mauritius and neighbouring islands, published in 1828, M. Achille Richard, who has examined specimens of several of Du Petit Thouars's *Angræcums*, expressly declares that in all these there is no gland, he says he has not seen *any thing like* caudicula (which is never found without a gland) in any one of them. Hence it would seem that no fact can be supported by more conclusive testimony than that *Angræcum* belongs to Malaxidæ; and yet this testimony I distrust so much that, without absolutely rejecting it, I cannot receive it; and for the following reasons. In the first place, I now know that my observation upon *A. maculatum* was incorrect; that plant has distinctly both a caudicula and gland; secondly, Du Petit Thouars in some cases, as t. 81. (*Æonia Auberti m.*) distinctly represents the pollen masses with glands, of which however M. Achille Richard denies the existence. Now in this case I prefer the evidence of M. Du Petit Thouars whose figure was taken from a fresh specimen. In the third place, M. Ach. Richard states that there is no gland in *Angræcum gladiifolium*; this happens to be the only Isle of France species I possess, and in my specimens I find a gland *from which the pollen masses have fallen*. Fourthly, the manifest close affinity between the Isle of France *Angræcums* and the *Limodorum falcatum* of Japan, and my *Aeranthus grandiflorum*, in both of which glands undoubtedly exist, persuades me that they are not really different in structure. Finally, the genus *Angræcum* has in some cases, as *A. calceolus*, *caulescens*, *crassum*, *palmatum*, &c. so completely the habit of the East Indian *Aerides*, that I feel great difficulty in believing them to be essentially different in the structure of their pollen masses.

This question can only be decided by a careful examination of good specimens, of which I am entirely destitute. I recommend the enquiry to those who are in possession of the requisite materials, or who are willing to oblige me by communicating them to me.

NOTE. The total number of Orchideous plants belonging to the Tribe Malaxideæ is as follows ;

Pleurothalleæ described	162
————— doubtful	7 ——— 169
Dendrobieæ described	205
————— doubtful	6 ——— 211

Total 380

Their geographical arrangement is thus :

Names of the Genera.	Europe.	Siberia and Northern Asia.	North America.	Northern India and Nipal.	Continent of India.	Ceylon.	Indian Archipelago.	China.	Japan.	New Holland.	South Sea Islands.	America within the tropic.	South America beyond the tropic.	South Africa.	Mauritius, &c.	Africa within the tropic.	North Africa.
1. Pleurothallis . .	.	.	.	.	.	.	.	.	.	.	.	14	.	.	.	.	.
2. Specklinia . .	.	.	.	.	.	.	.	.	.	.	.	5	.	.	.	.	.
3. Octomeria . .	.	.	.	.	.	.	.	.	.	.	.	3	.	.	.	.	.
4. Lepanthes . .	.	.	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.
5. Stelis . .	.	.	.	.	.	.	.	.	.	.	.	9	.	.	.	.	.
6. Osyricera . .	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
7. Chrysoglossum .	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.
8. Gastroglottis .	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
9. Restrepia . .	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
10. Oberonia . .	.	.	.	4	1	2	6	.	.	.	3	.	.	.	1	.	.
11. Empusa . .	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
12. Platystylis . .	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.
13. Microstylis . .	1	1	2	2	4	3	2	.	.	.	1	4	.	.	.	.	.
14. Dienia . .	.	1	.	3	.	1	.	1	.	.	.	2	.	.	.	.	.
15. Malaxis . .	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
16. Nephelaphyllum	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.
17. Acianthus . .	.	.	.	.	.	.	.	.	.	4	.	.	.	.	.	.	.
18. Cyrtosia . .	.	.	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.
19. Liparis . .	1	.	2	2	6	6	14	1	1	1	1	1	.	.	5	.	.
20. Dendrochilum	.	.	.	.	.	.	6	.	.	.	.	.	.	.	1	.	.
21. Otochilus . .	.	.	.	2	1	.	.	.	.	.	.	.	.	.	.	.	.
22. Coelia . .	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
23. Pholidota . .	.	.	.	1	4	1	2	.	.	.	.	.	.	.	.	.	.
24. Diliochia . .	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
25. Cœlogyne . .	.	.	.	13	3	1	4	.	.	.	.	.	.	.	.	.	.
26. Dicrypta . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
27. Mesoclastes . .	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.
28. Cochlia . .	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
29. Lyræa . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.
30. Megaclinium . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
31. Bolbophyllum . .	.	.	.	7	6	.	22	2	.	.	1	.	.	.	13	2	.
32. Cirrhopetalum	.	.	.	1	1	1	3	.	.	.	1	.	.	.	1	.	.
33. Trias . .	.	.	.	.	2	.	.	.	.	.	.	.	.	.	.	.	.
34. Macrostromium	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
35. Microcœlia . .	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.
36. Epicranthes . .	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
37. Monomeria . .	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.
38. Stenoglossum . .	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.
39. Diglyphosa . .	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
40. Mycaranthes . .	.	.	.	1	.	.	3	.	.	.	.	.	.	.	.	.	.
41. Phreatia . .	.	.	.	.	.	1	6	.	.	.	.	.	.	.	.	.	.
42. Eria . .	.	.	.	4	3	1	16	1	.	.	.	.	.	.	.	.	.
43. Aporum . .	.	.	.	.	1	.	4	.	.	.	.	.	.	.	.	.	.
44. Oxystophyllum	.	.	.	.	.	.	3	.	.	.	.	.	.	.	.	.	.
45. Polystachya . .	.	.	.	.	.	1	.	.	.	.	.	1	.	.	3	1	.
46. Metachilum . .	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.
47. Dendrobium . .	.	.	.	12	12	6	45	5	3	5	3	.	.	.	.	2?	.
Total	3	2	4	56	44	24	152	10	4	10	10	46	.	.	26	9	.

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Lindley, John,

The genera and species of Orchideous Plants

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